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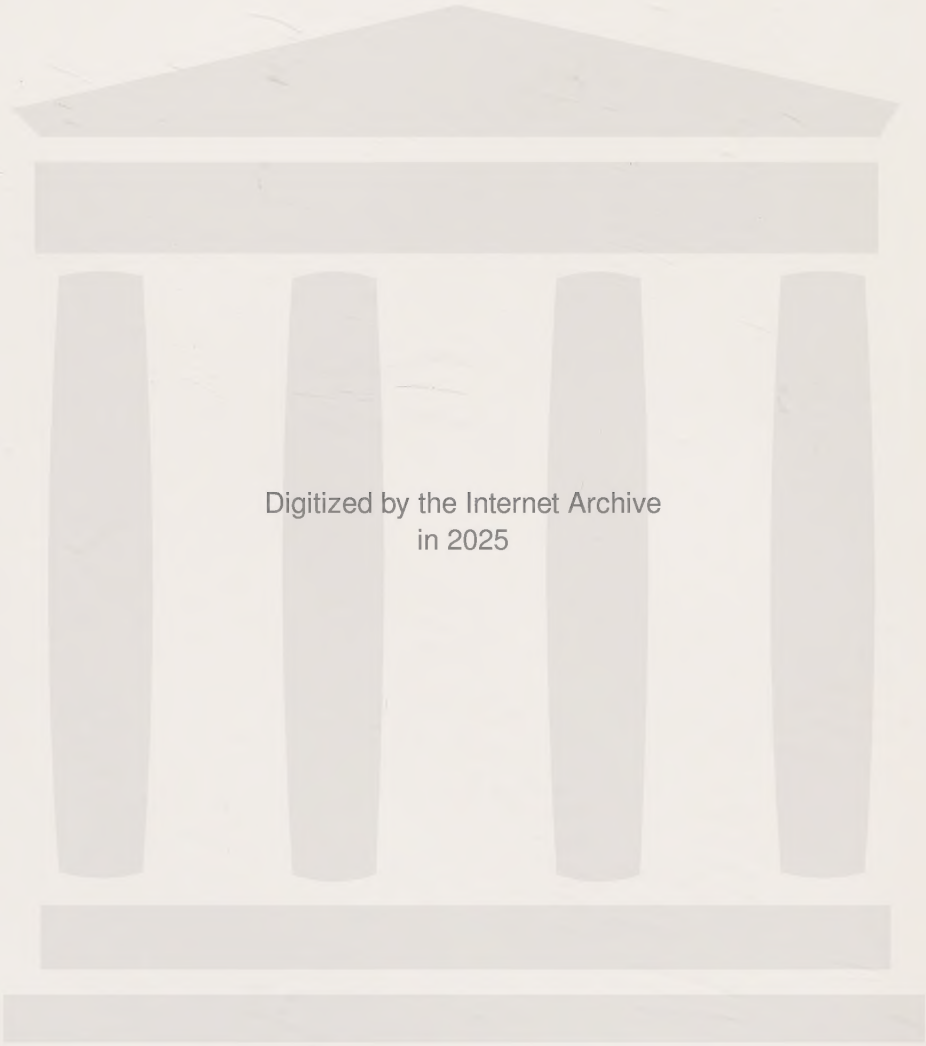
# ANNUAL REPORT OF OCEANOGRAPHIC OBSERVATIONS

# 海 洋 調 査 年 報

VOLUME 16

1967

國 立 水 產 振 興 院
Fisheries Research and Development Agency
The Government of the Republic of Korea
Pusan, Korea
October, 1968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# 大統領演說文

우리 모두 힘을 모아 오늘의 우리를 위하여 내일의 후손을 위하여 통일의 열매를 맺을 자립의 거목을 심자

大統領 年頭敎書에서

# ANNUAL REPORT
# OF
# OCEANOGRAPHIC OBSERVATIONS

# 海 洋 調 査 年 報

VOLUME 16

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國 立 水 產 振 興 院
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# 차 례


범 례 ..... 5

제 1 편 연안정지 해양관측성적 ..... 7

연안정지 해양관측점 위치도 ..... 11
연안정지 해양관측점 위치표 ..... 12
연안정지 월별 표면수온 ..... 13

제 2 편 C. S. K. 횡단정선 해양관측성적 ..... 19

(수온, 염분, 산소, 인삼염, 질산염, 규산염, pH 밀도 및 기상)

횡단정선 해양관측점 위치도 ..... 23
횡단정선 해양관측점 위치표 ..... 24
(1) 동해 해양조사 성적 ..... 27
(2) 남해 해양조사 성적 ..... 95
(3) 서해 해양조사 성적 .....179

제 3 편 횡단정선 해양관측성적 .....239

(수온, 염분, 산소, 인산염, 질산염, 규산염, pH 및 기상)

(1) 동해 해양조사 성적 .....243
(2) 남해 해양조사 성적 .....265
(3) 서해 해양조사 성적 .....383

제 4 편 진해만 조사성적 .....411

(1) 진해만 해양관측점 위치도 .....415
(2) 진해만 해양관측점 위치표 .....416
(3) 진해만 해양조사 성적 .....417

제 5 편 부유생물 조사성적 .....527

부유생물의 채집 및 조사방법 .....531
(1) 동해 부유생물조사 성적 .....533
(2) 남해 부유생물조사 성적 .....545
(3) 서해 부유생물조사 성적 .....571

제 6 편 특별 해양관측성적 .....591

(1) 동해 해양조사성적 .....595
(2) 남해 해양조사성적 .....611
(3) 서해 해양조사성적 .....619
(4) 남태평양 해양조사성적 .....637
(5) 남지나해 해양조사 성적 .....653

# CONTENTS


Explanations ..... 6

Part 1 Coastal Oceanographic Observations ..... 7

Location of the Shore stations ..... 11

Position of the Shore stations ..... 12

Surface Water Temperature at the Shore stations ..... 13

Part 2 C. S. K. Sectional Oceanographic Observations ..... 19

(Temperature, Salinity, Oxygen, $PO_4$-P $NO_2$-N, $SiO_2$-Si, pH, Density and Meteorological Data)

Serial Oceanographic Station Pattern ..... 23

Position of the Serial Oceanographic Stations ..... 24

1. Oceanographic Observations, Eastern Waters ..... 27
2. Oceanographic Observations, Southern Waters ..... 95
3. Oceanographic Observations, Western Waters .....179

Part 3 Sectional Oceanographic Observations.....239

(Temperature, Salinity, Oxygen, $PO_4$-P, $NO_2$-N, $SiO_2$-Si. pH and Meteorological Data)

1. Oceanographic Observations Eastern Waters .....243
2. Oceanographic Observations, Southern Waters .....265
3. Oceanographic Observations, Western Waters.....383

Part 4 Oceanographic Odservations Chin Hae Man .....411

1. Location of the Chin Hae Man Oceanographic Stations .....415
2. Position of the Chin Hae Man Oceanographic Stations .....416
3. Oceanographic Observations Chin Hae Man .....417

Part 5 Plankton Data .....527

Plankton Collections and Procedures .....531

(1) Plankton Data, Eastern Waters .....533

(2) Plankton Data, Southern Waters.....545

(3) Plankton Data, Western Waters .....571

Part 6 Miscellaneous Oceanographic Observations.....591

(1) Oceanographic Observations Eastern Waters .....595

(2) Oceanographic Observations Southern Waters .....611

(3) Oceanographic Observations Western Waters.....619

(4) Oceanographic Observations South Pasfic Waters.....637

(5) Oceanographic Observations South China Waters .....653

# 범 례

時　刻 : 大韓民國의 標準時이며 東經 135°의 子午線으로 한 平均太陽時임.

水　溫 : 攝氏度數(℃)이며 示度는 百分之壹까지 表示하였음.

鹽　分 : 電氣傳導度 鹽分計로 測定하고 千分率(‰)로 表示함

酸　素 : 水中溶存酸素量을 Winker氏 方法에 依하여 測定하고 1氣壓 0℃ 때의 cc/L로 表示됨.

pH : Fisher Accumet pH meter로 測定하였음.

燐酸鹽 : 分光光度計 Sp-600 또는 光電比色計 東京 光電式 7A型으로써 G. Deniges 方法에 依하여 測定하고 μg-at/L로 表示됨.

水　深 : Meter法에 表示됨.

水　色 : Forel 水色標準液의 水色番號(1~11)임.

透明度 : 透明度板에 依한 測定値로써 Meter法으로 表示됨.

波　浪 : 10階級法(0~9)에 依하여 目測한 것임.

너　울 : 4階級(0~3)에 依하여 目測한 것이며 波高는 0 : 0m, 1 : 2m未滿, 2 : 2~4m, 3 : 4m 以上임.

氣　溫 : 攝氏度數(℃)이며 示度는 拾分之壹임.

氣　壓 : Aneroid 氣壓計에 依한 觀測値이며 mb로 表示됨.

風　向 : 風向은 16方位法(磁針方法)에 依함.

風　力 : 風力은 Beaufort 風力 階級法에 依하여 目測한 것임.

雲　形 : 雲形은 10種 雲形法에 依함.

雲　量 : 雲量은 天空의 10等分法에 依하여 目測한 것임.

天　氣 : 天氣는 快晴(B) : 雲量 0~2, 晴(B) : 雲量 3~7, 雲(BC) : 雲量 8~10, (C) 雨(R), 霧(F), 雪(S)等으로 區分하여 表示됨.

# EXPLANATIONS

| | |
|---|---|
| Time | : Korean standard time used the mean solar time referred to the meridian of 135°E. |
| Water temperature | : Recorded in hundredths of a degree in centigrade. |
| Salinity | : Expressed in parts per thousandth, and measured by the iductively Coupled Salinometer Model 601 MK Ⅲ. |
| Oxygen | : Concentration of dissolved oxygen in volume per liter(cc/L) at 0℃ and 760 mm Hg. |
| pH | : Negative logarithm of the hydrogen ion concentration measured by the Fisher Accumet pH-meter. |
| $PO_4$-P | : Concentation of dissolved inorganic phosphorus-phosphate in microgram atoms per liter ($\mu$g at/L) determined by the G. Deniges method. |
| Depth | : Expressed in meters determined by the wire length and its angle or an interpolated value obtained. |
| Color of the sea | : Recorded in numbers of Forel Scale (1~11). |
| Transparency | : Expressed in meters determined by the Secchi disk, |
| Wind wave | : Expressed in the Scale (0~9). |
| Swell | : Expressed in the Scale (0~3). The numbers of the scale and the wave height are as follows. 0:0m, 1:less than 2m. 2:2~4m, 3: greater than 4m. |
| Air temperature | : Recorded in tenths of a degree in Centigrade. |
| Atmospheric pressure | : Recorded in millimeter obtained from the direct reading of Aneroid Barometers. |
| Wind direction | : Given in 16 point scale of the compass bearing. |
| Wind velocity | : Given in Beaufort Scale. |
| Cloud type | : Recorded in ten types of the cloud. |
| Cloud Cover | : Expressed in tenths of the whole sky covered. |
| Weather | : Recorded in present weather. the abbreviations and the cloud cover are as follows; B: 0~2, BC: 3~7, C: 8~10 Rain:R, Fog: F, etc. |

# 제 1 편

# 연안정지 해양 관측 성적



# PART 1

# COASTAL OCEANOGRAPHIC OBSERVATIONS

1967

# 차 례

연안정지 해양관측점 위치도 ..... 11

연안정지 해양관측점 위치표 ..... 12

연안정지 월별 표면수온 ..... 13

# CONTENTS

Location of the Shore Stations ..... 11

Position of the Shore Stations ..... 12

Surface Water temperature at the Shore Stations ..... 13

# 제 2 편

# C. S. K.

# (黑潮國際合同調査)

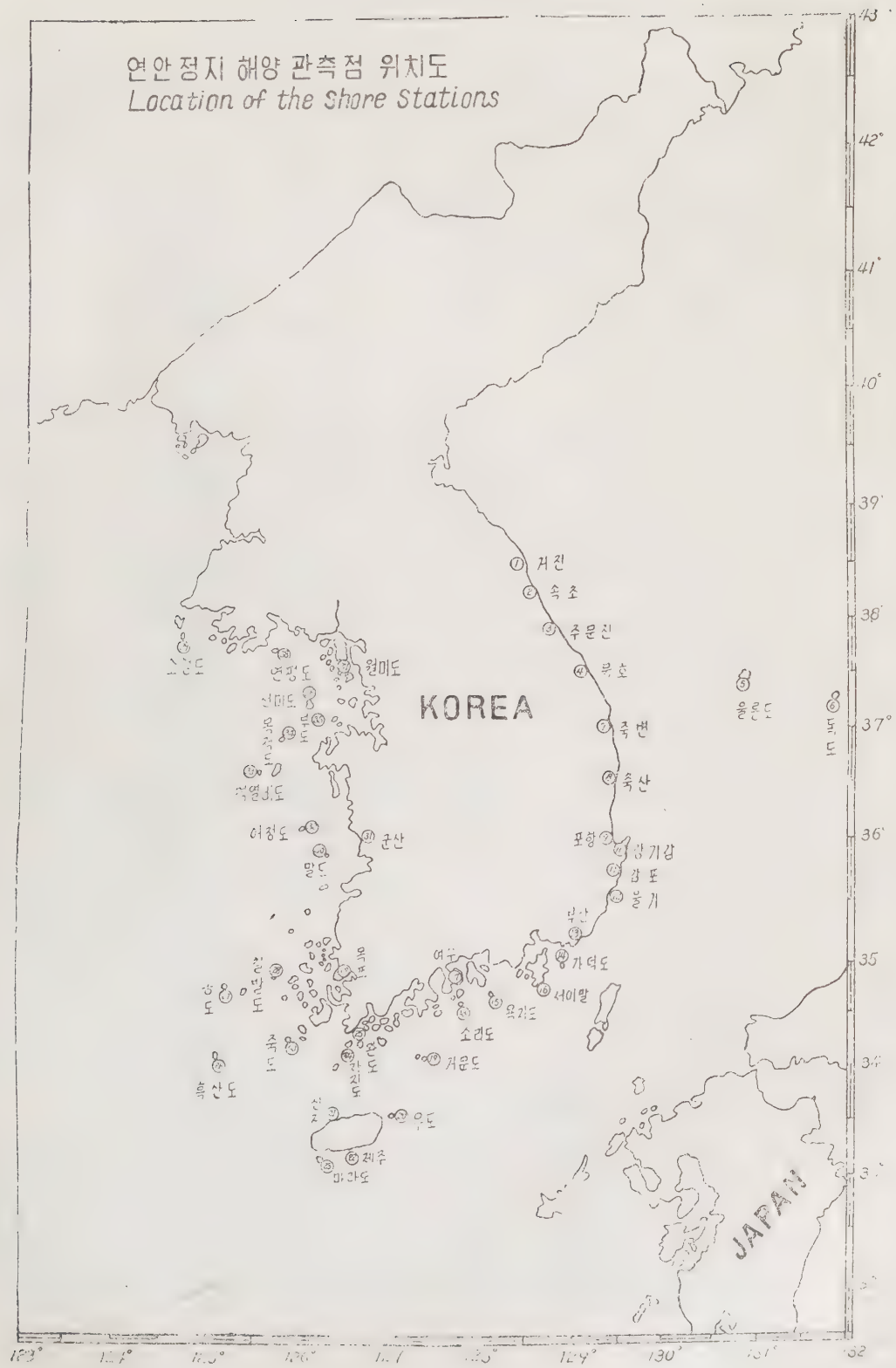
# 해 양 관 측 성 적

PART 2

SECTIONAL OCEANOGRAPHIC OBSERVATIONS

(Temperature, Salinity, $O_2$. $PO_4$-P. $NO_2$-N.
$SiO_2$-Si. pH Density and Meteorological Data)

1967


연안정지 해양 관측점 위치도
Location of the Shore Stations
KOREA
JAPAN
거진
속초
주문진
묵호
울릉도
독도
죽변
축산
포항
감기감
감포
울기
부산
가덕도
서이말
여수
욕지도
소리도
거문도
완도
제주
마라도
흑산도
군산
어청도
말도
원미도
연평도
선미도
백령도
43°
42°
41°
40°
39°
38°
37°
36°
35°
34°
33°
32°
129°
130°
131°
132°

# 연안정지 해양관측점 위치표

## Position of the Shore Stations

| 해역 (Region) | 번호 No. | 관측지명 Name of the Station | 위치 Position 북위 Lat(N) | 동경 long(E) | 관측회수 Frequency of Observation | 관측개시년월 Date of Inauguration |
|---|---|---|---|---|---|---|
| 동해안 East Coast | ① | 거진 Kujin | 38° 28′ 30″ | 128° 26′ 00″ | 매일 Daily* | 1967. 4 |
| | ② | 속초 Sok cho | 38° 12′ 32″ | 128° 36′ 18″ | 매일 Daily 〃 | 1967. 4 |
| | ③ | 주문진 Chumun-jin | 37° 53′ 15″ | 128° 50′ 00″ | 매일 Daily 〃 | 1952. 8 |
| | ④ | 묵호 Muk Ho | 37° 32′ 58″ | 129° 07′ 15″ | 매일 Daily 〃 | 1967. 6 |
| | ⑤ | 울릉도 Ulreng-Do | 37° 29′ 00″ | 130° 54′ 35″ | 매일 Daily 〃 | 1931. 11 |
| | ⑥ | 독도 Dok-Do | 27° 15′ 30″ | 131° 51′ 30″ | 매일 Daily 〃 | 1967. 6 |
| | ⑦ | 축변 Chuk-byon | 37° 03′ 28″ | 129° 26′ 00″ | 매일 Daily 〃 | 1916. 7 |
| | ⑧ | 축산 Chuk-San | 36° 30′ 29″ | 129° 27′ 7″ | 매일 Daily 〃 | |
| | ⑨ | 포항 Pohang | 36° 02′ 56″ | 129° 26′ 10″ | 매일 Daily 〃 | 1946. 7 |
| | ⑩ | 장기갑 Changgigap | 36° 04′ 35″ | 129° 34′ 30″ | 매일 Daily 〃 | 1916. 7 |
| | ⑪ | 감포 GamPo | 35° 48′ 20″ | 129° 30′ 40″ | 매일 Daily 〃 | 1967. 5 |
| | ⑫ | 울기 Ulgi | 35° 29′ 28″ | 129° 26′ 50″ | 매일 Daily 〃 | 1939. 1 |
| 남해안 South Coast | ⑬ | 부산 Pusan | 35° 05′ 08″ | 129° 02′ 07″ | 매일 Daily 〃 | 1925. 3 |
| | ⑭ | 가덕도 Kaduk-Do | 34° 59′ 20″ | 128° 49′ 50″ | 매일 Daily 〃 | 1930. 1 |
| | ⑮ | 욕지도 Yokji-Do | 34° 38′ 9″ | 128° 17′ 2″ | 매일 Daily 〃 | 1968. 11 |
| | ⑯ | 서이말 Sui-mal | 34° 47′ 00″ | 128° 44′ 10″ | 매일 Daily 〃 | 1967. 4 |
| | ⑰ | 여수 Yosu | 34° 44′ 00″ | 128° 44′ 00″ | 매일 Daily 〃 | 1921. 1 |
| | ⑱ | 소리도 Sori-Do | 34° 24′ 15″ | 127° 48′ 15″ | 매일 Daily 〃 | 1928. 4 |
| | ⑲ | 거문도 Kumun-Do | 34° 00′ 30″ | 127° 19′ 15″ | 매일 Daily 〃 | 1916. 7 |
| | ⑳ | 우도 U-Do | 33° 29′ 10″ | 126° 58′ 10″ | 매일 Daily 〃 | 1967. 4 |
| | ㉑ | 산지 Sanji | 33° 31′ 10″ | 126° 33′ 00″ | 매일 Daily 〃 | 1923. 10 |
| | ㉒ | 제주 Che ju | 33° 13′ 30″ | 126° 34′ 45″ | 매일 Daily 〃 | 1963. 1 |
| | ㉓ | 마라도 Mara-Do | 33° 06′ 45″ | 126° 06′ 45″ | 매일 Daily 〃 | 1923. 10 |
| | ㉔ | 자지도 Chaji-Do | 34° 05′ 20″ | 126° 36′ 15″ | 매일 Daily 〃 | 1928. 4 |
| | ㉕ | 완도 Wan-Do | 34° 19′ 10″ | 126° 45′ 00″ | 매일 Daily 〃 | 1967. 9 |
| 서해안 West Coast | ㉖ | 흑산도 Huksan-Do | 34° 05′ 30″ | 125° 06′ 5″ | 매일 Daily 〃 | 1925. 10 |
| | ㉗ | 홍도 Hong-Do | 34° 42′ 30″ | 125° 13′ 00″ | 매일 Daily 〃 | 1933. 1 |
| | ㉘ | 칠발도 Chilbal-Do | 34° 47′ 25″ | 125° 47′ 30″ | 매일 Daily 〃 | 1967. 5 |
| | ㉙ | 목포 Mok Po | 34° 46′ 40″ | 126° 23′ 05″ | 매일 Daily 〃 | 1928. 8 |
| | ㉚ | 말도 Mal-Do | 35° 51′ 15″ | 126° 19′ 10″ | 매일 Daily 〃 | 1967. 4 |
| | ㉛ | 군산 Kun San | 35° 59′ 15″ | 126° 43′ 00″ | 매일 Daily 〃 | 1939. 4 |
| | ㉜ | 어청도 U Chung-Do | 36° 06′ 40″ | 125° 59′ 15″ | 매일 Daily 〃 | 1916. 7 |
| | ㉝ | 격열비도 Kyognyolbi-Do | 36° 37′ 15″ | 125° 33′ 20″ | 매일 Daily 〃 | 1916. 7 |
| | ㉞ | 목덕도 Mokduk-Do | 36° 55′ 40″ | 125° 45′ 30″ | 매일 Daily 〃 | 1967. 9 |
| | ㉟ | 부도 Pu-Do | 37° 08′ 40″ | 126° 21′ 00″ | 매일 Daily 〃 | 1926. 1 |
| | ㊱ | 선미도 Sunmi-Do | 37° 17′ 10″ | 126° 04′ 40″ | 매일 Daily 〃 | 1967. 7 |
| | ㊲ | 월미도 Wolmi-Do | 37° 28′ 25″ | 126° 36′ 30″ | 매일 Daily 〃 | 1967. 4 |
| | ㊳ | 연평도 Yunpyung-Do | 37° 38′ 55″ | 125° 41′ 10″ | 매일 Daily 〃 | 1967. 4 |
| | ㊴ | 소청도 So Chung-Do | 37° 45′ 00″ | 124° 44′ 00″ | 매일 Daily 〃 | 1967. 5 |
| | ㊵ | 죽도 Chuk-Do | 34° 13′ 30″ | 125° 51′ 00″ | 매일 Daily 〃 | 1916. 7 |

매일 오전 10시 관측
At 10 a.m every Station.

# 연안정지 월별 표면수온

## Surface Water Temperature at the Shore Stations.

| 월 Month | 관측지명 Station / 순 Ten day | ① 거 진 Kujin | ② 속 초 Sokcho | ③ 주문진 Chumun-jin | ④ 묵 호 Muk Ho | ⑤ 울릉도 Ulneung-Do | ⑥ 독 도 Dok-Do | ⑦ 축 변 Chuk-byon |
|---|---|---|---|---|---|---|---|---|
| 1 월 Jan. | 상 순 1st | — | — | 5.52 | — | 12.00 | — | 9.93 |
| | 중 순 2nd | — | — | 6.00 | — | 10.70 | — | 8.95 |
| | 하 순 3rd | — | — | 7.71 | — | 10.70 | — | 8.11 |
| | **월평균 Mean** | — | — | **6.41** | — | **11.13** | — | **9.00** |
| 2 월 Feb. | 상 순 1st | — | — | 6.87 | — | 9.75 | — | 7.53 |
| | 중 순 2nd | — | — | 5.93 | — | 9.31 | — | 7.59 |
| | 하 순 3rd | — | — | 7.95 | — | 9.66 | — | 7.55 |
| | **월평균 Mean** | — | — | **6.92** | — | **9.57** | — | **7.56** |
| 3 월 Mar. | 상 순 1st | — | — | 8.20 | — | 9.70 | — | 7.56 |
| | 중 순 2nd | — | — | 9.30 | — | 10.09 | — | 9.33 |
| | 하 순 3rd | — | — | 9.46 | — | 10.60 | — | 9.84 |
| | **월평균 Mean** | — | — | **8.99** | — | **10.13** | — | **8.91** |
| 4 월 Apr. | 상 순 1st | — | — | 9.52 | — | 10.98 | — | 11.29 |
| | 중 순 2nd | — | — | 9.57 | — | 11.13 | — | 10.46 |
| | 하 순 3rd | 10.48 | 10.50 | 12.11 | — | 11.77 | — | 10.26 |
| | **월평균 Mean** | **10.48** | **10.50** | **10.40** | — | **11.29** | — | **10.67** |
| 5 월 May. | 상 순 1st | 11.30 | 11.70 | 12.50 | — | 14.29 | — | 9.10 |
| | 중 순 2nd | 12.30 | 13.50 | 14.61 | — | 15.45 | — | 10.55 |
| | 하 순 3rd | 14.60 | 16.20 | 15.92 | — | 16.70 | 17.01 | 13.23 |
| | **월평균 Mean** | **12.91** | **13.80** | **14.21** | — | **15.49** | **17.01** | **10.96** |
| 6 월 Jun. | 상 순 1st | 15.50 | 16.00 | 17.00 | — | 17.70 | 17.10 | 15.74 |
| | 중 순 2nd | 17.10 | 16.80 | 18.70 | 18.40 | 16.49 | 17.75 | 17.70 |
| | 하 순 3rd | 18.00 | 17.90 | 18.84 | 18.90 | 18.28 | — | 18.83 |
| | **월평균 Mean** | **15.53** | **16.90** | **18.18** | **18.60** | **17.49** | **17.43** | **17.42** |
| 7 월 Jul. | 상 순 1st | 17.80 | 16.90 | 17.69 | 16.45 | 19.70 | 17.61 | 18.72 |
| | 중 순 2nd | 19.83 | 20.30 | 19.93 | 20.30 | 21.60 | 20.60 | 16.57 |
| | 하 순 3rd | 22.40 | 22.30 | 23.19 | 23.70 | 24.60 | 24.45 | 21.65 |
| | **월평균 Mean** | **19.30** | **19.83** | **20.35** | **20.20** | **21.96** | **21.22** | **19.98** |
| 8 월 Aug. | 상 순 1st | 24.20 | 25.10 | 24.81 | 23.70 | 26.60 | 26.80 | 23.40 |
| | 중 순 2nd | 25.00 | 25.00 | 25.12 | 24.40 | 26.60 | 28.07 | 24.80 |
| | 하 순 3rd | 24.50 | 28.50 | 24.78 | 25.20 | 27.20 | — | 24.30 |
| | **월평균 Mean** | **23.70** | **26.23** | **24.92** | **22.50** | **26.80** | **27.44** | **24.17** |
| 9 월 Sep. | 상 순 1st | 23.60 | 23.70 | 24.00 | 23.50 | — | — | 24.00 |
| | 중 순 2nd | 20.80 | 20.80 | 21.20 | 20.90 | — | 20.76 | 21.20 |
| | 하 순 3rd | 19.50 | 19.80 | 20.23 | 18.50 | — | — | 20.83 |
| | **월평균 Mean** | **21.30** | **21.40** | **21.81** | **29.60** | — | **20.76** | **22.01** |
| 10월 Oct. | 상 순 1st | 18.50 | 17.90 | 18.37 | 18.40 | — | 14.98 | 20.60 |
| | 중 순 2nd | 18.00 | 17.00 | 17.67 | 18.90 | — | 14.69 | 19.70 |
| | 하 순 3rd | 18.10 | 15.80 | 18.88 | 19.60 | — | — | 20.70 |
| | **월평균 Mean** | **18.20** | **16.90** | **18.21** | **18.96** | — | **14.84** | **20.31** |
| 11월 Nov. | 상 순 1st | 15.50 | 14.90 | 14.63 | 15.80 | — | — | 16.30 |
| | 중 순 2nd | 13.40 | 13.30 | 12.70 | 14.40 | — | — | 14.50 |
| | 하 순 3rd | 11.90 | 11.70 | 13.44 | 12.90 | — | — | 12.92 |
| | **월평균 Mean** | **13.60** | **13.30** | **13.59** | **14.36** | — | — | **14.57** |
| 12월 Dec. | 상 순 1st | 10.40 | 10.39 | 10.13 | 11.30 | — | 15.35 | 12.65 |
| | 중 순 2nd | 8.90 | 8.50 | 8.39 | 9.30 | — | 15.25 | 11.90 |
| | 하 순 3rd | 6.90 | 8.60 | 9.42 | 8.90 | — | — | 12.18 |
| | **월평균 Mean** | **8.73** | **9.16** | **9.31** | **9.83** | — | **15.30** | **12.24** |
| 년 Year. | **년 평 균 Annual Mean** | — | — | **14.69** | — | — | — | **14.88** |

| 월 Month | 관측지명 Station / 순 Sen day | ⑧ 축 산 Chuk-San | ⑨ 포 항 Po Hang | ⑩ 장기갑 Changgigap | ⑪ 감 포 Gampo | ⑫ 울 기 Ulgi | ⑬ 부 산 Pusan | ⑭ 가덕도 Kadck-Do |
|---|---|---|---|---|---|---|---|---|
| 1 월 Jan. | 상 순 1st | — | 7.10 | 9.40 | — | 13.50 | 9.40 | 12.40 |
| | 중 순 2nd | — | 5.56 | 7.60 | — | 13.10 | 10.16 | 11.60 |
| | 하 순 3rd | — | 7.31 | 8.90 | — | 13.06 | 11.24 | 12.02 |
| | 월평균 Mean | — | 6.66 | 8.63 | — | 13.22 | 10.27 | 12.00 |
| 2 월 Feb. | 상 순 1st | — | 6.05 | 7.40 | — | 12.49 | 10.40 | 12.00 |
| | 중 순 2nd | — | 7.10 | 8.10 | — | 11.70 | 10.39 | 11.70 |
| | 하 순 3rd | — | 7.97 | 8.30 | — | 9.13 | 11.01 | 9.96 |
| | 월평균 Mean | — | 7.04 | 7.93 | — | 11.11 | 10.51 | 11.22 |
| 3 월 Mar. | 상 순 1st | — | 7.92 | 8.60 | — | 11.26 | 11.10 | 12.20 |
| | 중 순 2nd | — | 9.67 | 9.30 | — | 12.20 | 11.56 | 12.50 |
| | 하 순 3rd | — | 10.38 | 9.80 | — | 13.22 | 11.22 | 12.50 |
| | 월평균 Mean | — | 9.32 | 9.23 | — | 12.22 | 11.29 | 12.40 |
| 4 월 Apr. | 상 순 1st | — | 12.31 | 11.80 | — | 12.32 | 12.75 | 12.70 |
| | 중 순 2nd | — | 11.90 | 14.50 | — | 12.79 | 12.96 | 12.70 |
| | 하 순 3rd | — | 14.39 | 15.49 | — | 13.09 | 14.58 | 13.00 |
| | 월평균 Mean | — | 12.86 | 13.93 | — | 12.73 | 13.43 | 12.80 |
| 5 월 May. | 상 순 1st | — | 15.03 | 15.60 | 14.80 | 12.65 | 14.60 | 13.10 |
| | 중 순 2nd | — | 17.48 | 15.70 | 16.30 | 12.96 | 15.90 | 12.80 |
| | 하 순 3rd | — | 18.40 | 16.50 | 17.80 | 13.30 | 17.00 | 14.00 |
| | 월평균 Mean | — | 16.97 | 15.93 | 16.30 | 12.97 | 15.83 | 13.30 |
| 6 월 Jun. | 상 순 1st | — | 19.19 | 16.90 | 17.10 | 13.71 | 18.36 | 12.90 |
| | 중 순 2nd | — | 20.70 | 17.00 | 18.30 | 16.86 | 19.40 | 13.10 |
| | 하 순 3rd | — | 22.07 | 17.30 | 20.50 | 22.41 | 20.20 | 13.30 |
| | 월평균 Mean | — | 20.65 | 17.07 | 18.60 | 17.66 | 19.30 | 13.91 |
| 7 월 Jul. | 상 순 1st | — | 22.10 | 18.60 | 20.40 | 23.00 | 19.60 | 14.70 |
| | 중 순 2nd | — | 22.70 | 22.00 | 17.70 | 21.31 | 20.70 | 15.10 |
| | 하 순 3rd | — | 26.50 | 25.30 | 21.70 | 24.50 | 20.91 | 15.60 |
| | 월평균 Mean | — | 23.76 | 21.96 | 19.93 | 23.75 | 20.40 | 15.33 |
| 8 월 Aug. | 상 순 1st | — | 26.60 | 26.90 | 21.40 | 24.53 | 24.40 | 16.90 |
| | 중 순 2nd | — | 26.50 | 26.70 | 18.90 | 23.79 | 23.70 | 16.90 |
| | 하 순 3rd | — | 24.70 | 26.80 | 23.60 | 24.60 | 24.80 | 21.80 |
| | 월평균 Mean | — | 22.60 | 26.80 | 21.30 | 24.24 | 24.30 | 18.50 |
| 9 월 Sep. | 상 순 1st | — | 24.54 | 27.00 | 24.00 | 25.63 | 25.58 | 20.50 |
| | 중 순 2nd | — | 22.80 | 24.50 | 23.70 | 25.69 | 24.30 | 20.10 |
| | 하 순 3rd | — | 22.90 | 23.10 | 23.20 | 24.40 | 23.00 | 19.00 |
| | 월평균 Mean | — | 23.41 | 24.86 | 23.60 | 25.24 | 24.29 | 19.87 |
| 10월 Oct. | 상 순 1st | — | 19.80 | 22.80 | 21.70 | 22.42 | 20.27 | 18.20 |
| | 중 순 2nd | — | 19.02 | 22.30 | 21.20 | 21.20 | 19.51 | 18.40 |
| | 하 순 3rd | — | 17.60 | 22.00 | 21.60 | 20.30 | 18.34 | 19.80 |
| | 월평균 Mean | — | 18.00 | 22.37 | 21.50 | 21.31 | 19.53 | 18.80 |
| 11월 Nov. | 상 순 1st | — | 14.80 | 15.20 | 17.20 | 17.90 | 16.69 | 17.60 |
| | 중 순 2nd | — | 12.50 | 19.70 | 16.40 | 15.70 | 15.34 | 17.30 |
| | 하 순 3rd | — | 13.30 | 14.20 | — | 15.30 | 13.09 | 16.10 |
| | 월평균 Mean | — | 13.53 | 16.30 | 16.80 | 16.30 | 15.04 | 17.00 |
| 12월 Dec. | 상 순 1st | — | 10.27 | 8.80 | 13.03 | 14.40 | 10.05 | 15.90 |
| | 중 순 2nd | — | 8.93 | 6.30 | 12.60 | 13.92 | 8.03 | 14.80 |
| | 하 순 3rd | — | 7.58 | 3.70 | 13.30 | 13.05 | 5.95 | 15.70 |
| | 월평균 Mean | — | 8.93 | 6.26 | 12.98 | 13.79 | 9.01 | 15.46 |
| 년 Year | 년 평 균 Annual Mean | — | 15.37 | 15.94 | — | 17.29 | 16.20 | 17.09 |

| ⑮ 욕지도 Yokji-Do | ⑯ 서이말 Sui-mal | ⑰ 여수 Yosu | ⑱ 소리도 Sori-Do | ⑲ 거문도 Kumun-Do | ⑳ 우도 U-Do | ㉑ 산지도 Sanji-Do | ㉒ 제주 CheJu | ㉓ 마라도 Mara-Do |
|---|---|---|---|---|---|---|---|---|
| — | — | 5.40 | 11.28 | 12.10 | — | 14.10 | 14.93 | 14.82 |
| — | — | 3.70 | 8.97 | 12.72 | — | 13.50 | 14.19 | 13.90 |
| — | — | 4.30 | 8 65 | 12.60 | — | 13.30 | 14.84 | 15.28 |
| — | — | **4.47** | **9.63** | **12.47** | — | **13.63** | **14.65** | **14.66** |
| — | — | 4.78 | 8.80 | 12.77 | — | 12.80 | 13.30 | 11.84 |
| — | — | 4.70 | 8.42 | 12.34 | — | 11.90 | 13.10 | 9.99 |
| — | — | 5 50 | 8.25 | 11.56 | — | 12.80 | 13.60 | 8.82 |
| — | — | **4.99** | **8.52** | **12.22** | — | **12.50** | **13.30** | **10.22** |
| — | — | 6.60 | 7.94 | 11.69 | — | 13.00 | 14.60 | 13.31 |
| — | — | 8.20 | 9.35 | 12.32 | — | 13.40 | 14.90 | 13.52 |
| — | — | 9.60 | 9.74 | 11.40 | — | 13.70 | 14.80 | 13.72 |
| — | — | **8.13** | **9.01** | **10.41** | — | **13.36** | **14.76** | **13.52** |
| — | — | 11.30 | 10.60 | 12.31 | — | 14.30 | 14.80 | 11.27 |
| — | — | 11.90 | 11.06 | 11.89 | 11.40 | 14.50 | 14.40 | 13.79 |
| — | 13.52 | 13.44 | 12.78 | 12.23 | 13.72 | 14.30 | 14.90 | 14.48 |
| — | **13.52** | **10.21** | **11.48** | **12.14** | **12.56** | **14.37** | **14.70** | **13.18** |
| — | 14.52 | 15.30 | 13.48 | 13.18 | 14.64 | 14.60 | 15.70 | 15.33 |
| — | 15.01 | 17.40 | 14.60 | 13.64 | 15.80 | 16.60 | 16.90 | 16.26 |
| — | 15.49 | 21.20 | 15.89 | 16.27 | 17.08 | 17.60 | 18.30 | 18.46 |
| — | **15.00** | **17.96** | **14.65** | **14.36** | **15.84** | **16.27** | **16.96** | **16.64** |
| — | 17.53 | 21.10 | 17.50 | 16.81 | 18.40 | 19.10 | 20.30 | 19.26 |
| — | 17.65 | 22.30 | 20.68 | 16.16 | 19.40 | 21.10 | 21.00 | 20.65 |
| — | 19.22 | 23.20 | 21.01 | 19.15 | 18.70 | 19.50 | 21.30 | 22.25 |
| — | **18.30** | **22.20** | **19.72** | **17.37** | **18.80** | **19.90** | **20.86** | **20.72** |
| — | 19.24 | 23.00 | 20.73 | 19.76 | 19.80 | 20.50 | 21.10 | 22.41 |
| — | 18.49 | 23.70 | 22.12 | 20.27 | 22.00 | 23.10 | 21.50 | 22.87 |
| — | 22.68 | 24.60 | 24.08 | 24.23 | 22.60 | 21.80 | 24.50 | 25.00 |
| — | **20.13** | **23.70** | **22.31** | **21.42** | **21.50** | **21.80** | **22.30** | **23.42** |
| — | 23.12 | 25.90 | 25.27 | 23.77 | 26.30 | 19.80 | 26.10 | 25.72 |
| — | 20.74 | 26.20 | 23.29 | 22.07 | 26.60 | 19.60 | 26.40 | 27.23 |
| — | 23.23 | 27.70 | 28.88 | 24.57 | 26.50 | 19.40 | 26.80 | 28.30 |
| — | **22.36** | **26.60** | **23.81** | **23.47** | **26.40** | **19.60** | **23.11** | **27.08** |
| — | 25.85 | 25.20 | 24.99 | 24.96 | 24.10 | 18.70 | 27.30 | 28.03 |
| — | 24.55 | 24.70 | 24.70 | 24.34 | 22.89 | 17.40 | 26.96 | 26.70 |
| — | 22.95 | 23.50 | 24.78 | 24.16 | 23.60 | 16.40 | 25.60 | 24.41 |
| — | **24.45** | **24.40** | **24.82** | **24 59** | **23 60** | **17.50** | **26.62** | **26.39** |
| — | 22.10 | 22.00 | 22.79 | 22.70 | 21.80 | 16.00 | 23 80 | 22.00 |
| — | 20 91 | 20.40 | 21.56 | 20.84 | 22 00 | 14.30 | 22.80 | 20.66 |
| — | — | 19.00 | 19.63 | 19.23 | 21.90 | 14.10 | 20.60 | 20.14 |
| — | **21.51** | **20.47** | **21.33** | **20.92** | **21.90** | **14.80** | **22.40** | **20.93** |
| — | 17.45 | 17.60 | 17.48 | 17.10 | 18.50 | 13.32 | 19.40 | 18.83 |
| — | 16.26 | 14.20 | 15.98 | 14.98 | 18.30 | — | 18.40 | 18.02 |
| — | 15.77 | 12.50 | 15.11 | 14.91 | 17.70 | — | 18.60 | 18.85 |
| — | **16.49** | **14.67** | **16.19** | **15.66** | **18.17** | **13.32** | **18.80** | **18.23** |
| — | 15.16 | 9.70 | 10.06 | 14.10 | 16.60 | 15.70 | 16.90 | 13.55 |
| — | 13.87 | 9.80 | 12.81 | 14.31 | 15.80 | 15.60 | 15.80 | 17.54 |
| — | 13.32 | 7.20 | 9.36 | 14.21 | 15.40 | 14.60 | 15.10 | 17.16 |
| — | **14.12** | **8.90** | **10.72** | **14.21** | **15.93** | **15.30** | **15.93** | **16.08** |
| — | — | 15.56 | 16.02 | 16.60 | — | 16.03 | 18.70 | 18.42 |

| 월 Month | 관측지명 Station / 순 Ten day | ㉔ 자시도 Chaji-Do | ㉕ 완도 Wan-Do | ㉖ 흑산도 Huksan-Do | ㉗ 홍도 Hong-Do | ㉘ 칠발도 Chilbal-Do | ㉙ 목포 Mokpo | ㉚ 말도 Mal-Do |
|---|---|---|---|---|---|---|---|---|
| 1 월 Jan. | 상순 1st | 8.80 | — | 11.28 | 9.01 | — | 5.39 | — |
| | 중순 2nd | 7.70 | — | 10.89 | 8.87 | — | 4.46 | — |
| | 하순 3rd | 9.19 | — | 11.65 | 8.43 | — | 4.23 | — |
| | **월평균 Mean** | **8.56** | — | **11.27** | **8.77** | — | **4.69** | — |
| 2 월 Feb. | 상순 1st | 8.40 | — | — | 7.40 | — | 5.09 | — |
| | 중순 2nd | 7.90 | — | — | 6.63 | — | 3.89 | — |
| | 하순 3rd | 8.60 | — | — | 6.31 | — | 4.73 | — |
| | **월평균 Mean** | **8.30** | — | — | **6.78** | — | **4.57** | — |
| 3 월 Mar. | 상순 1st | 8.10 | — | 10.60 | 6.39 | — | 5.34 | — |
| | 중순 2nd | 9.10 | — | 10.10 | 6.57 | — | 6.48 | — |
| | 하순 3rd | 9.30 | — | 9.90 | 6.69 | — | 7.36 | — |
| | **월평균 Mean** | **8.83** | — | **10.20** | **6.55** | — | **6.39** | — |
| 4 월 Apr. | 상순 1st | 8.30 | — | 10.31 | 7.36 | — | 9.50 | — |
| | 중순 2nd | 11.00 | — | 10.43 | 7.73 | — | 10.71 | 7.50 |
| | 하순 3rd | 17.20 | — | 10.83 | 9.03 | — | 12.25 | 8.57 |
| | **월평균 Mean** | **12.16** | — | **10.52** | **8.30** | — | **10.82** | **8.13** |
| 5 월 May. | 상순 1st | 17.20 | — | 9.26 | 10.41 | — | 14.90 | 10.12 |
| | 중순 2nd | 19.80 | — | 10.47 | — | 12.80 | 15.80 | 11.44 |
| | 하순 3rd | 17.00 | — | 12.85 | — | 13.80 | 16.80 | 14.23 |
| | **월평균 Mean** | **17.80** | — | **10.86** | **10.41** | **13.50** | **15.83** | **14.93** |
| 6 월 Jun. | 상순 1st | 25.62 | — | 17.10 | 15.90 | 15.90 | 19.70 | 15.72 |
| | 중순 2nd | 27.80 | — | 18.60 | 19.32 | 16.30 | 21.85 | 17.58 |
| | 하순 3rd | 20.17 | — | 19.70 | 21.61 | 16.20 | 22.08 | 18.50 |
| | **월평균 Mean** | **24.53** | — | **18.40** | **19.13** | **16.80** | **21.21** | **17.20** |
| 7 월 Jul. | 상순 1st | 17.90 | — | 20.89 | 19.63 | 18.30 | 22.05 | 19.63 |
| | 중순 2nd | 20.10 | — | 21.30 | 21.08 | 19.10 | 23.04 | 19.90 |
| | 하순 3rd | 22.60 | — | 23.40 | 23.97 | 20.40 | 25.50 | 25.38 |
| | **월평균 Mean** | **19.70** | — | **21.86** | **21.56** | **19.30** | **23.53** | **21.63** |
| 8 월 Aug. | 상순 1st | 23.10 | — | 23.10 | 25.82 | 21.80 | 24.10 | 25.23 |
| | 중순 2nd | 22.70 | — | 24.20 | 26.29 | 22.60 | 27.30 | 26.20 |
| | 하순 3rd | 23.10 | — | 24.40 | 27.32 | 24.60 | 29.80 | 26.30 |
| | **월평균 Mean** | **22.96** | — | **23.90** | **26.50** | **23.00** | **27.20** | **25.91** |
| 9 월 Sep. | 상순 1st | 22.50 | — | 24.10 | 26.73 | 23.80 | 27.30 | 26.54 |
| | 중순 2nd | 22.00 | 22.84 | 21.40 | 20.19 | 21.00 | 24.64 | 26.51 |
| | 하순 3rd | 22.60 | 22.92 | 20.90 | 17.96 | 19.20 | 22.59 | 25.91 |
| | **월평균 Mean** | **22.40** | **22.88** | **22.13** | **21.63** | **21.50** | **24.84** | **26.32** |
| 10월 Oct. | 상순 1st | 21.21 | 20.56 | 20.60 | 19.27 | 20.40 | 21.31 | 22.42 |
| | 중순 2nd | 18.93 | 21.48 | 20.10 | 19.40 | 19.20 | 18.57 | 19.70 |
| | 하순 3rd | 16.71 | 18.47 | 20.20 | 17.45 | 17.70 | 18.24 | — |
| | **월평균 Mean** | **18.95** | **20.17** | **20.20** | **18.72** | **19.10** | **19.37** | **21.06** |
| 11월 Nov. | 상순 1st | 16.25 | 15.06 | 17.50 | 16.72 | 16.40 | 16.61 | 16.20 |
| | 중순 2nd | 14.12 | 13.61 | 15.50 | 14.49 | 14.10 | 13.54 | 13.86 |
| | 하순 3rd | 13.60 | 12.48 | 14.10 | 12.04 | 12.80 | 12.37 | 12.32 |
| | **월평균 Mean** | **14.66** | **13.72** | **15.70** | **14.42** | **14.43** | **14.17** | **14.13** |
| 12월 Dec. | 상순 1st | 11.15 | 10.45 | 12.50 | 10.90 | 11.20 | 9.95 | 10.12 |
| | 중순 2nd | 10.44 | 8.43 | 12.50 | 9.61 | 8.11 | 7.65 | 7.91 |
| | 하순 3rd | 9.30 | 7.55 | 12.30 | 8.20 | 8.28 | 6.25 | 5.39 |
| | **월평균 Mean** | **10.29** | **8.81** | **12.43** | **9.57** | **9.19** | **7.95** | **7.81** |
| 년 Year | **년평균 Annual Mean** | **15.76** | — | **16.13** | **14.36** | **18.23** | **15.05** | — |

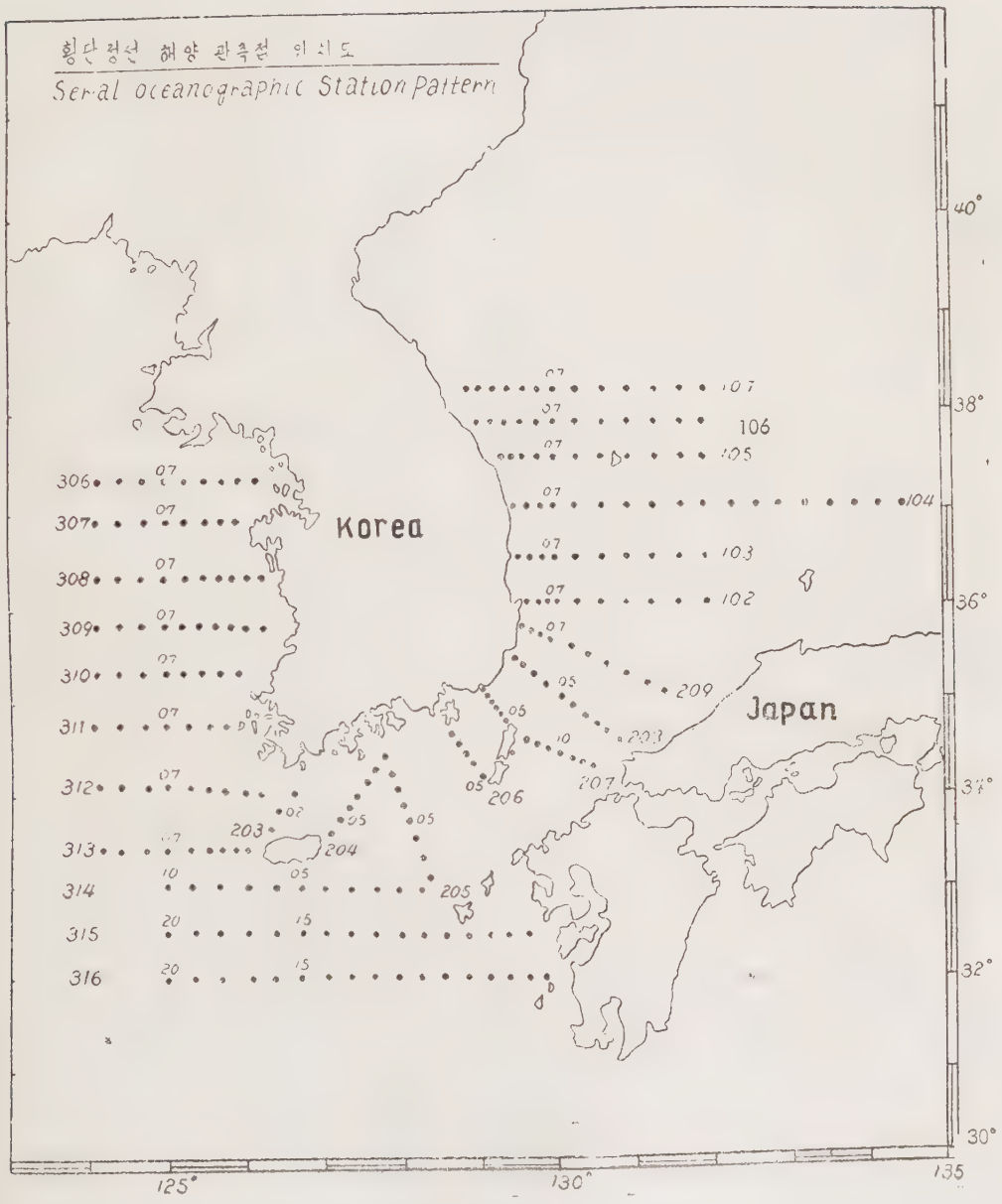
| ㉛ 군 산 Kunsan | ㉜ 어청도 Ochung-Do | ㉝ 격열비도 Kycgnyolbi-Do | ㉞ 목덕도 Mokduk-Do | ㉟ 부 도 Pu-Do | ㊱ 선미도 Sunmi-Do | ㊲ 월미도 Wolmi-Do | ㊳ 연평도 Yunpyung-Do | ㊴ 소청도 Sochung-Do | ㊵ 죽 도 Chuk-Do |
|---|---|---|---|---|---|---|---|---|---|
| 0.39 | 7.11 | 6.84 | — | 3.86 | — | — | — | — | 8.60 |
| -1.00 | 5.50 | 6.78 | — | 2.58 | — | — | — | — | 9.90 |
| 0.92 | 4.50 | 6.49 | — | 2.26 | — | — | — | — | 9.60 |
| **0.31** | **5.70** | **6.70** | — | **2.90** | — | — | — | — | **9.36** |
| 1.00 | 3.70 | 5.62 | — | 1.90 | — | — | — | — | 5.10 |
| 0.22 | 3.45 | 5.41 | — | 1.39 | — | — | — | — | 8.80 |
| 1.80 | 3.00 | 4.33 | — | 1.84 | — | — | — | — | 6.50 |
| **1.01** | **3.38** | **5.40** | — | **1.71** | — | — | — | — | **6.80** |
| 4.63 | 3.45 | 4.40 | — | 2.05 | — | — | — | — | 8.80 |
| 6.60 | 3.40 | 4.33 | — | 2.93 | — | — | — | — | 7.40 |
| 8.72 | 5.70 | 5.33 | — | 4.07 | — | — | — | — | 9.48 |
| **6.65** | **4.18** | **4.67** | — | **3.02** | — | — | — | — | **8.56** |
| 10.21 | 6.95 | 5.40 | — | 5.40 | — | 12.30 | — | — | 8.90 |
| 11.52 | 7.74 | 5.67 | — | 6.00 | — | — | — | — | 10.30 |
| 14.16 | 8.10 | 5.81 | — | 7.20 | — | — | 10.50 | — | 9.60 |
| **11.96** | **7.60** | **5.62** | — | **6.20** | — | **12.30** | **10.50** | — | **9.60** |
| 17.24 | 9.25 | 5.59 | — | 9.50 | — | 12.39 | 13.46 | — | 11.80 |
| 18.70 | 11.48 | 6.51 | — | 10.60 | — | 14.27 | 15.40 | 9.52 | 13.00 |
| 20.95 | 14.22 | 10.23 | — | 12.27 | — | 17.86 | 19.41 | 11.10 | 13.60 |
| **18.96** | **11.65** | **7.42** | — | **9.75** | — | **14.84** | **15.10** | **10.31** | **12.80** |
| 23.16 | 16.10 | 10.46 | — | 14.18 | — | 18.12 | — | 12.32 | 13.80 |
| 23.11 | 18.95 | 10.89 | — | 15.52 | — | 19.20 | — | 13.96 | 14.70 |
| 25.21 | 21.05 | 12.90 | — | 16.62 | — | 20.60 | — | 16.20 | 14.40 |
| **23.89** | **18.70** | **11.41** | — | **15.44** | — | **19.30** | — | **14.16** | **14.30** |
| 23.40 | 21.70 | 18.37 | — | 18.65 | 17.92 | 21.60 | — | 18.18 | 19.60 |
| 24.83 | 25.40 | 18.70 | — | 19.34 | 19.13 | 23.10 | — | 17.67 | 19.50 |
| 28.18 | 25.50 | 23.70 | — | 21.37 | 20.63 | 25.00 | — | 19.59 | 20.00 |
| **25.48** | **24.20** | **19.70** | — | **19.79** | **19.22** | **23.30** | — | **18.48** | **19.80** |
| 29.20 | 26.63 | — | — | 23.30 | 22.60 | 26.40 | 27.45 | 22.52 | 20.40 |
| 28.85 | 26.75 | — | — | 24.70 | 23.50 | 26.80 | 26.45 | 23.06 | 20.20 |
| 28.05 | 27.35 | — | — | 25.40 | 26.80 | 27.20 | 30.05 | 28.82 | 20.10 |
| **28.46** | **26.91** | — | — | **24.50** | **24.20** | **26.80** | **27.98** | **24.80** | **20.23** |
| 27.46 | 26.65 | — | — | 26.18 | 25.70 | — | 24.98 | 22.25 | 20.00 |
| 22.76 | 23.75 | — | 24.40 | 24.37 | 24.80 | 22.88 | 20.65 | 23.00 | 20.00 |
| 22.72 | 22.70 | — | 23.95 | 23.21 | 23.10 | — | 19.80 | 20.29 | 20.00 |
| **24.03** | **24.37** | — | **24.18** | **24.59** | **24.53** | **22.88** | **21.81** | **21.85** | **20.00** |
| 19.71 | 19.85 | — | 19.70 | 22.16 | 22.60 | 19.85 | 19.90 | 17.02 | 18.90 |
| 17.72 | 17.30 | — | 18.80 | 20.70 | 19.80 | — | 18.37 | 18.87 | 17.80 |
| 16.59 | 17.09 | — | 19.00 | 20.74 | 19.90 | — | 18.00 | 17.09 | 17.30 |
| **18.01** | **17.67** | — | **19.16** | **21.20** | **20.77** | **19.85** | **18.76** | **16.66** | **18.00** |
| 13.93 | 14.20 | — | 18.80 | 22.20 | 16.20 | — | 14.50 | 13.56 | 11.80 |
| 9.18 | 12.85 | — | 13.70 | 14.02 | 15.90 | — | 10.95 | 10.90 | 13.90 |
| 8.91 | 12.05 | — | 11.95 | 12.59 | 13.90 | — | 9.40 | 11.11 | 10.70 |
| **10.67** | **13.03** | — | **14.82** | **16.27** | **15.31** | — | **11.62** | **11.86** | **12.19** |
| 6.09 | 10.00 | — | 9.70 | 11.03 | 10.50 | — | 6.00 | 9.55 | 9.70 |
| 3.63 | 8.90 | — | 7.00 | 8.30 | 7.60 | — | 4.79 | 8.77 | 11.20 |
| 1.33 | 8.85 | — | 6.00 | 6.52 | 5.80 | — | — | 5.83 | 11.90 |
| **3.68** | **9.25** | — | **7.43** | **8.62** | **7.97** | — | **5.40** | **8.05** | **10.93** |
| **14.41** | **13.88** | — | — | **12.83** | — | — | — | — | **13.54** |

# 차 례


횡단 정선 해양 관측점 위치도 ····· 23
횡단 정선 해양 관측점 위치표 ····· 24
1. 동해 해양 조사 성적 ····· 27
A. 106선 해양 관측 성적 ····· 29
B. 105선 해양 관측 성적 ····· 43
C. 104선 해양 관측 성적 ····· 55
D. 103선 해양 관측 성적 ····· 73
E. 102선 해양 관측 성적 ····· 82
2. 남해 해양 조사 성적 ····· 95
A. 209선 해양 관측 성적 ····· 97
B. 208선 해양 관측 성적 ····· 103
C. 207선 해양 관측 성적 ····· 113
D. 206선 해양 관측 성적 ····· 125
E. 205선 해양 관측 성적 ····· 130
F. 204선 해양 관측 성적 ····· 138
G. 203선 해양 관측 성적 ····· 144
H. 313선 해양 관측 성적 ····· 147
I. 314선 해양 관측 성적 ····· 156
J. 315선 해양 관측 성적 ····· 162
K. 316선 해양 관측 성적 ····· 170
3. 서해 해양 조사 성적 ····· 179
A. 306선 해양 관측 성적 ····· 181
B. 307선 해양 관측 성적 ····· 187
C. 308선 해양 관측 성적 ····· 194
D. 309선 해양 관측 성적 ····· 204
E. 310선 해양 관측 성적 ····· 214
F. 311선 해양 관측 성적 ····· 222
G. 312선 해양 관측 성적 ····· 229

# COTNENTS

Serial Oceanographic Station Pattern ..... 23
Position of the Serial Oceanographic Stations ..... 24
1. Oceanographic Observations, Eastern Waters ..... 27
A. Oceanographic Data, Line 106 ..... 29
B. Oceanographic Data, Line 105 ..... 43
C. Oceanographic Data, Line 104 ..... 55
D. Oceanographic Data, Line 103 ..... 73
E. Oceanographic Data, Line 102 ..... 82
2. Oceanographic Observations, Southern Waters ..... 95
A. Oceanographic Data, Line 209 ..... 97
B. Oceanographic Data, Line 208 ..... 103
C. Oceanographic Data, Line 207 ..... 113
D. Oceanographic Data, Line 206 ..... 125
E. Oceanographic Data, Line 205 ..... 130
F. Oceanographic Data, Line 204 ..... 138
G. Oceanographic Data, Line 203 ..... 144
H. Oceanographic Data, Line 313 ..... 147
I. Oceanographic Data, Line 314 ..... 156
J. Oceanographic Data, Line 315 ..... 162
K. Oceanographic Data, Line 316 ..... 170
3. Oceanographic Observations, Western Waters ..... 179
A. Oceanographic Data, Line 306 ..... 181
B. Oceanographic Data, Line 307 ..... 187
C. Oceanographic Data, Line 308 ..... 194
D. Oceanographic Data, Line 309 ..... 204
E. Oceanographic Data, Line 310 ..... 214
F. Oceanographic Data, Line 311 ..... 222
G. Oceanographic Data, Line 312 ..... 229


횡단정선 해양 관측점 위치도
Serial oceanographic Station pattern
Korea
Japan
306
307
308
309
310
311
312
313
314
315
316
101
106
105
104
103
102
209
208
206
207
203
204
205
40°
38°
36°
34°
32°
30°
125°
130°
135

# 횡단정선 해양관측점 위치표

## Position of the Serial Oceanographic Station

| St No. / Line | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| 107 | 38° 12′ 6″<br>128° 37′ 4″ | 38° 12′ 6″<br>128° 42′ 7″ | 38° 12′ 6″<br>128° 50′ 6″ | 38° 12′ 6″<br>128° 03′ 5″ | 38° 12′ 6″<br>129° 22′ 3″ | 38° 12′ 6″<br>129° 41′ 1″ | 38° 12′ 6″<br>130° 00′ 0″ | 38° 12′ 6″<br>130° 18′ 9″ |
| 106 | | 37° 53′ 7″<br>128° 52′ 5″ | 37° 53′ 7″<br>128° 57′ 2″ | 37° 53′ 7″<br>129° 03′ 8″ | 37° 53′ 7″<br>129° 22′ 1″ | 37° 53′ 7″<br>129° 41′ 3″ | 37° 53′ 7″<br>130° 00′ 0″ | 37° 53′ 7″<br>130° 18′ 9″ |
| 105 | | | 37° 33′ 2″<br>129° 10′ 3″ | 37° 33′ 2″<br>129° 15′ 5″ | 37° 33′ 2″<br>129° 22′ 6″ | 37° 33′ 2″<br>129° 41′ 3″ | 37° 33′ 2″<br>130° 00′ 0″ | 37° 33′ 2″<br>130° 18′ 7″ |
| 104 | | | | 37° 03′ 4″<br>129° 28′ 8″ | 37° 03′ 4″<br>129° 33′ 6″ | 37° 03′ 4″<br>129° 47′ 6″ | 37° 03′ 4″<br>130° 00′ 0″ | 37° 03′ 4″<br>130° 18′ 7″ |
| 103 | | | | 36° 30′ 3″<br>129° 30′ 1″ | 36° 30′ 3″<br>129° 35′ 4″ | 36° 30′ 3″<br>129° 47′ 3″ | 36° 30′ 3″<br>130° 00′ 0″ | 36° 30′ 3″<br>130° 18′ 6″ |
| 102 | | | | 36° 04′ 6″<br>129° 36′ 9″ | 36° 04′ 6″<br>129° 41′ 3″ | 36° 04′ 6″<br>129° 42′ 8″ | 36° 04′ 6″<br>130° 00′ 0″ | 36° 04′ 6″<br>130° 18′ 4″ |
| 209 | | | | 35° 47′ 3″<br>129° 32′ 8″ | 35° 45′ 4″<br>129° 38′ 4″ | 35° 41′ 3″<br>129° 49′ 0″ | 35° 36′ 8″<br>130° 00′ 3″ | 35° 30′ 8″<br>130° 16′ 9″ |
| 208 | 35° 28′ 5″<br>129° 27′ 3″ | 35° 24′ 3″<br>129° 33′ 8″ | 35° 17′ 8″<br>129° 42′ 9″ | 35° 11′ 1″<br>129° 52′ 7″ | 35° 04′ 8″<br>130° 02′ 0″ | 34° 58′ 2″<br>130° 11′ 9″ | 34° 52′ 0″<br>130° 20′ 9″ | 34° 45′ 3″<br>130° 30′ 6″ |
| 207 | 35° 01′ 3″<br>129° 07′ 2″ | 34° 57′ 6″<br>129° 11′ 2″ | 34° 53′ 9″<br>129° 15′ 4″ | 34° 50′ 2″<br>129° 19′ 5″ | 34° 48′ 0″<br>129° 21′ 8″ | 34° 44′ 4″<br>129° 25′ 8″ | 34° 38′ 6″<br>129° 37′ 3″ | 34° 33′ 6″<br>129° 47′ 9″ |
| 206 | 34° 35′ 5″<br>128° 34′ 5″ | 34° 29′ 6″<br>128° 41′ 2″ | 34° 22′ 4″<br>128° 49′ 7″ | 34° 15′ 3″<br>128° 58′ 0″ | 34° 08′ 1″<br>129° 06′ 3″ | | | |
| 205 | 34° 22′ 3″<br>127° 48′ 5″ | 34° 15′ 0″<br>127° 52′ 1″ | 34° 05′ 5″<br>127° 56′ 9″ | 33° 51′ 5″<br>128° 03′ 0″ | 33° 37′ 3″<br>128° 09′ 2″ | 33° 23′ 6″<br>128° 14′ 3″ | 33° 07′ 7″<br>127° 21′ 3″ | 32° 55′ 9″<br>129° 27′ 0″ |
| 204 | 34° 20′ 8″<br>127° 43′ 9″ | 34° 13′ 7″<br>127° 35′ 4″ | 34° 06′ 7″<br>127° 26′ 8″ | 33° 54′ 1″<br>127° 15′ 2″ | 33° 45′ 5″<br>127° 09′ 2″ | 33° 35′ 5″<br>127° 03′ 2″ | | |
| 203 | 33° 56′ 6″<br>126° 31′ 4″ | 33° 47′ 5″<br>126° 26′ 3″ | 33° 38′ 3″<br>126° 21′ 3″ | | | | | |
| 316 | | | | 32° 00′ 0″<br>129° 41′ 3″ | 32° 00′ 0″<br>129° 24′ 1″ | 32° 00′ 0″<br>129° 07′ 0″ | 32° 00′ 0″<br>128° 49′ 2″ | 32° 00′ 0″<br>128° 32′ 0″ |
| 315 | | | | | 32° 30′ 0″<br>129° 28′ 0″ | 32° 30′ 0″<br>129° 10′ 9″ | 32° 30′ 0″<br>128° 53′ 1″ | 32° 30′ 0″<br>128° 35′ 0″ |
| 314 | 33° 00′ 0″<br>127° 42′ 0″ | 33° 00′ 0″<br>127° 24′ 0″ | 33° 00′ 0″<br>127° 06′ 0″ | 33° 00′ 0″<br>126° 48′ 0″ | 33° 00′ 0″<br>126° 30′ 0″ | 33° 00′ 0″<br>126° 12′ 0″ | 33° 00′ 0″<br>125° 54′ 0″ | 33° 00′ 0″<br>125° 36′ 0″ |
| 313 | | 33° 24′ 4″<br>126° 00′ 0″ | 33° 24′ 4″<br>125° 48′ 0″ | 33° 24′ 4″<br>125° 36′ 0″ | 33° 24′ 4″<br>125° 24′ 0″ | 33° 24′ 4″<br>125° 12′ 0″ | 33° 24′ 4″<br>125° 00′ 0″ | 33° 24′ 4″<br>124° 48′ 0″ |
| 312 | | 33° 58′ 5″<br>126° 06′ 0″ | 33° 59′ 8″<br>125° 54′ 0″ | 34° 01′ 3″<br>125° 42′ 0″ | 34° 02′ 6″<br>125° 30′ 0″ | 34° 04′ 1″<br>125° 18′ 0″ | 34° 05′ 5″<br>125° 00′ 0″ | 34° 05′ 5″<br>124° 48′ 0″ |
| 311 | | | | 34° 43′ 0″<br>125° 43′ 9″ | 34° 43′ 0″<br>125° 31′ 9″ | 34° 43′ 0″<br>125° 19′ 4″ | 34° 43′ 0″<br>125° 00′ 0″ | 34° 43′ 0″<br>124° 47′ 9″ |
| 310 | | | 35° 20′ 0″<br>125° 49′ 3″ | 35° 20′ 1″<br>125° 36′ 5″ | 35° 20′ 1″<br>125° 24′ 4″ | 35° 20′ 1″<br>125° 12′ 1″ | 35° 20′ 1″<br>125° 00′ 0″ | 35° 20′ 1″<br>124° 47′ 9″ |
| 309 | 35° 51′ 3″<br>126° 14′ 7″ | 35° 51′ 3″<br>126° 02′ 0″ | 35° 51′ 3″<br>125° 49′ 3″ | 35° 51′ 3″<br>125° 37′ 0″ | 35° 51′ 3″<br>125° 24′ 4″ | 35° 51′ 3″<br>125° 12′ 3″ | 35° 51′ 3″<br>125° 00′ 0″ | 35° 51′ 3″<br>124° 47′ 8″ |
| 308 | 36° 19′ 8″<br>126° 14′ 4″ | 36° 19′ 8″<br>126° 02′ 3″ | 36° 19′ 8″<br>125° 50′ 0″ | 36° 19′ 8″<br>125° 37′ 0″ | 36° 19′ 8″<br>125° 25′ 3″ | 36° 19′ 8″<br>125° 12′ 4″ | 36° 19′ 8″<br>125° 00′ 0″ | 36° 19′ 8″<br>124° 47′ 5″ |
| 307 | | | 36° 56′ 5″<br>126° 00′ 0″ | 36° 55′ 5″<br>125° 37′ 7″ | 36° 55′ 5″<br>125° 25′ 0″ | 36° 55′ 5″<br>125° 12′ 5″ | 36° 55′ 5″<br>125° 00′ 0″ | 36° 55′ 5″<br>124° 47′ 5″ |
| 306 | | 37° 16′ 9″<br>126° 03′ 1″ | 37° 16′ 9″<br>125° 50′ 3″ | 37° 16′ 9″<br>125° 37′ 8″ | 37° 16′ 9″<br>125° 25′ 2″ | 37° 16′ 9″<br>125° 12′ 7″ | 37° 16′ 9″<br>125° 00′ 0″ | 37° 16′ 9″<br>124° 47′ 4″ |

| St No. / Line | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|
| 107 | 38° 12′ 6″<br>130° 37′ 9″ | 38° 12′ 6″<br>130° 56′ 6″ | 38° 12′ 6″<br>131° 15′ 2″ | 38° 12′ 6″<br>131° 34′ 1″ | 38° 12′ 6″<br>131° 53′ 6″ | 38° 12′ 6″<br>132° 12′ 6″ | 38° 12′ 6″<br>132° 31′ 3″ | |
| 106 | 37° 53′ 7″<br>130° 37′ 7″ | 37° 53′ 7″<br>130° 56′ 6″ | 37° 53′ 7″<br>131° 15′ 1″ | 37° 53′ 7″<br>131° 34′ 7″ | 37° 53′ 7″<br>131° 53′ 0″ | 37° 53′ 7″<br>132° 12′ 2″ | 37° 53′ 7″<br>132° 30′ 9″ | |
| 105 | 37° 33′ 2″<br>130° 37′ 5″ | 37° 33′ 2″<br>130° 55′ 9″ | 37° 33′ 2″<br>131° 14′ 6″ | 37° 33′ 2″<br>131° 33′ 8″ | 37° 33′ 2″<br>131° 52′ 2″ | 37° 33′ 2″<br>132° 11′ 2″ | 37° 33′ 2″<br>132° 29′ 8″ | |
| 104 | 37° 03′ 4″<br>130° 37′ 6″ | 37° 03′ 4″<br>130° 56′ 4″ | 37° 03′ 4″<br>131° 15′ 3″ | 37° 03′ 4″<br>131° 33′ 8″ | 37° 03′ 4″<br>131° 52′ 6″ | 37° 03′ 4″<br>132° 11′ 6″ | 37° 03′ 4″<br>132° 29′ 5″ | 37° 03′ 4″<br>132° 47′ 6″ |
| 103 | 36° 30′ 3″<br>130° 37′ 3″ | 36° 30′ 3″<br>130° 55′ 6″ | 36° 30′ 3″<br>131° 14′ 0″ | 36° 30′ 3″<br>131° 33′ 1″ | 36° 30′ 3″<br>131° 51′ 2″ | 36° 30′ 3″<br>131° 10′ 1″ | 36° 30′ 3″<br>132° 28′ 5″ | |
| 102 | 36° 04′ 6″<br>130° 36′ 9″ | 36° 04′ 6″<br>130° 55′ 1″ | 36° 04′ 6″<br>131° 13′ 6″ | 36° 04′ 6″<br>131° 32′ 3″ | 36° 04′ 6″<br>131° 50′ 6″ | 36° 04′ 6″<br>132° 09′ 0″ | 36° 04′ 6″<br>132° 27′ 3″ | |
| 209 | 35° 24′ 4″<br>130° 33′ 5″ | 35° 17′ 8″<br>130° 50′ 0″ | 35° 11′ 4″<br>131° 06′ 6″ | 35° 05′ 3″<br>131° 22′ 6″ | 34° 58′ 9″<br>131° 39′ 1″ | | | |
| 208 | 34° 38′ 9″<br>130° 40′ 5″ | 34° 32′ 5″<br>130° 49′ 8″ | | | | | | |
| 207 | 34° 28′ 6″<br>129° 58′ 4″ | 34° 23′ 7″<br>130° 08′ 7″ | 34° 18′ 6″<br>130° 19′ 3″ | 34° 13′ 8″<br>130° 29′ 7″ | 34° 09′ 0″<br>130° 40′ 3″ | | | |
| 306 | 37° 16′ 9″<br>124° 34′ 8″ | 37° 16′ 9″<br>124° 22′ 3″ | | | | | | |
| 307 | 36° 55′ 5″<br>124° 34′ 8″ | 36° 55′ 5″<br>124° 22′ 3″ | | | | | | |
| 308 | 36° 19′ 8″<br>124° 35′ 1″ | 36° 19′ 8″<br>124° 22′ 8″ | | | | | | |
| 309 | 35° 51′ 3″<br>124° 35′ 1″ | 35° 51′ 3″<br>124° 22′ 8″ | | | | | | |
| 310 | 35° 20′ 1″<br>124° 35′ 6″ | 35° 20′ 1″<br>124° 23′ 5″ | | | | | | |
| 311 | 34° 43′ 0″<br>124° 35′ 8″ | 34° 43′ 0″<br>124° 23′ 4″ | | | | | | |
| 312 | 34° 05′ 5″<br>123° 36′ 0″ | 34° 05′ 5″<br>124° 24′ 0″ | | | | | | |
| 313 | 33° 24′ 4″<br>124° 36′ 0″ | 33° 24′ 4″<br>124° 24′ 0″ | | | | | | |
| 314 | 33° 00′ 0″<br>120° 18′ 0″ | 33° 00′ 0″<br>125° 00′ 0″ | 33° 00′ 0″<br>124° 42′ 0″ | 33° 00′ 0″<br>124° 24′ 0″ | | | | |
| 315 | 32° 30′ 0″<br>128° 17′ 6″ | 32° 30′ 0″<br>127° 59′ 8″ | 32° 30′ 0″<br>127° 41′ 8″ | 32° 30′ 0″<br>127° 23′ 4″ | 32° 30′ 0″<br>127° 05′ 8″ | 32° 30′ 0″<br>126° 48′ 0″ | 32° 30′ 0″<br>126° 30′ 2″ | 32° 30′ 0″<br>126° 12′ 0″ |
| 316 | 32° 00′ 0″<br>128° 14′ 5″ | 32° 00′ 0″<br>127° 57′ 0″ | 32° 00′ 0″<br>127° 39′ 1″ | 32° 00′ 0″<br>127° 22′ 1″ | 32° 00′ 0″<br>127° 04′ 3″ | 32° 00′ 0″<br>126° 46′ 7″ | 32° 00′ 0″<br>126° 29′ 0″ | 32° 00′ 0″<br>126° 11′ 1″ |

| St No. / Line | 17 | 18 | 19 | 20 | 21 | 22 | | |
|---|---|---|---|---|---|---|---|---|
| 104 | 37° 03′ 4″<br>133° 06′ 1″ | 37° 03′ 4″<br>133° 24′ 7″ | 37° 03′ 4″<br>133° 43′ 1″ | 37° 03′ 4″<br>134° 01′ 7″ | 37° 03′ 4″<br>134° 20′ 4″ | | | |
| 315 | 32° 30′ 0″<br>125° 53′ 6″ | 32° 30′ 0″<br>125° 35′ 9″ | 32° 30′ 0″<br>125° 17′ 9″ | 32° 30′ 0″<br>125° 00′ 0″ | 32° 30′ 0″<br>124° 42′ 2″ | 32° 30′ 0″<br>124° 24′ 3″ | | |
| 316 | 32° 00′ 0″<br>125° 53′ 3″ | 32° 00′ 0″<br>125° 35′ 8″ | 32° 00′ 0″<br>125° 17′ 8″ | 32° 00′ 0″<br>125° 00′ 0″ | 32° 00′ 0″<br>124° 31′ 8″ | 32° 00′ 0″<br>124° 23′ 8″ | | |

# 동 해 해 양 조 사 성 적

# OCEANOGRAPHIC OBSERVATIONS EASTERN WATERS

1 9 6 7

# 106선 해 양 관 측 성 적

## Oceanographic Data, Line 106

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 21 | 0343 | 43 | | | NNE2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 3 | 1015.1 | 8.3 | | | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.40 | 34.46 | 5.74 | 0.08 | 0.02 | 12.36 | 7.72 | 0 | 10.40 | 34.45 | 5.74 | 26.43 | 156 | 0.000 |
| [illegible] | [illegible] | 34.47 | 5.75 | 0.10 | 0.03 | 13.09 | 8.07 | 10 | 10.38 | 34.47 | 5.75 | 26.47 | 155 | 0.016 |
| 19 | 10.23 | 34.47 | 5.71 | 0.11 | 0.05 | 14.54 | 8.02 | 20 | 10.17 | 34.46 | 5.70 | 26.53 | 152 | 0.031 |
| 29 | 9.29 | 34.42 | 5.61 | 0.14 | 0.05 | 16.72 | 8.08 | 30 | 9.13 | 34.41 | 5.60 | 26.66 | 139 | 0.046 |
| 底 | 4.21 | 34.17 | 5.22 | 0.21 | 0.06 | 18.90 | 7.83 | | | | | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 21 | 0230 | 255 | | 11 | NNE | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 2 | 1015.2 | 8.7 | | | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.80 | 34.50 | 5.71 | 0.07 | 0.06 | 14.54 | 7.70 | 0 | 10.80 | 34.50 | 5.71 | 26.44 | 160 | 0.000 |
| [illegible] | 10.78 | 34.50 | 5.71 | 0.07 | 0.03 | 15.27 | — | 10 | 10.77 | 34.49 | 5.71 | 26.44 | 159 | 0.016 |
| 19 | 10.72 | 34.49 | 5.68 | 0.18 | 0.06 | 16.72 | 7.78 | 20 | 10.73 | 34.49 | 5.68 | 26.45 | 159 | 0.032 |
| 29 | 10.55 | 34.49 | 5.63 | 0.20 | 0.06 | 18.18 | 7.93 | 30 | 10.38 | 34.47 | 5.62 | 26.50 | 154 | 0.048 |
| 49 | 6.36 | 34.21 | 5.54 | 0.18 | 0.02 | 21.81 | 8.02 | 50 | 6.18 | 34.20 | 6.54 | 26.92 | 114 | 0.075 |
| 74 | 2.96 | 34.07 | 5.60 | 0.24 | 0.02 | 25.45 | 7.78 | 75 | 2.89 | 34.06 | 5.60 | 27.17 | 90 | 0.100 |
| 98 | 1.97 | 34.05 | 5.49 | 0.28 | 0.09 | 26.17 | 7.80 | 100 | 1.91 | 34.04 | 5.48 | 27.24 | 84 | 0.122 |
| 115 | 1.59 | 34.05 | 5.38 | 0.49 | 0.19 | 29.81 | 7.61 | 125 | 1.39 | 34.05 | 5.35 | 27.28 | 80 | 0.143 |
| 138 | 1.18 | 34.06 | 5.34 | 0.59 | 0.05 | 30.53 | 7.70 | 150 | 1.04 | 34.06 | 5.34 | 27.31 | 77 | 0.162 |
| 196 | 0.74 | 34.08 | 5.33 | 0.56 | 0.06 | 31.26 | 7.80 | 200 | 0.71 | 34.08 | 5.32 | 27.35 | 74 | 0.200 |
| 底 | 0.53 | 34.07 | 5.09 | 0.63 | 0.05 | 31.99 | 7.59 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 21 | 0055 | 710 | | | NNE | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 2 | 1014.6 | 9.3 | | | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.76 | 34.48 | 5.67 | 0.13 | 0.03 | 15.27 | 7.81 | 0 | 10.76 | 34.48 | 5.67 | 26.43 | 160 | 0.000 |
| 9 | 10.73 | 34.49 | 5.64 | 0.14 | 0.02 | 16.72 | 7.84 | 10 | 10.70 | 34.48 | 5.63 | 26.45 | 159 | 0.016 |
| 19 | 10.46 | 34.48 | 5.60 | 0.15 | 0.03 | 21.81 | 7.85 | 20 | 10.43 | 34.48 | 5.60 | 26.49 | 155 | 0.032 |
| 29 | 10.15 | 34.48 | 5.64 | 0.14 | 0.04 | 22.54 | 8.00 | 30 | 10.10 | 34.47 | 5.64 | 26.55 | 150 | 0.047 |
| 49 | 8.42 | 34.37 | 5.53 | 0.14 | 0.02 | 23.99 | 7.89 | 50 | 8.21 | 34.37 | 5.53 | 26.77 | 158 | 0.075 |
| 73 | 3.47 | 34.07 | 5.55 | 0.14 | 0.06 | 28.35 | 7.91 | 75 | 3.27 | 34.06 | 5.55 | 27.13 | 94 | 0.103 |
| 97 | 2.06 | 34.05 | 5.54 | — | 0.06 | — | 7.76 | 100 | 1.95 | 34.04 | 5.54 | 27.24 | 84 | 0.125 |
| 122 | 1.42 | 34.05 | 5.52 | 0.28 | 0.03 | 29.81 | 7.79 | 125 | 1.36 | 34.05 | 5.51 | 27.28 | 80 | 0.146 |
| 141 | 1.11 | 34.07 | 5.42 | 0.35 | 0.06 | 31.99 | 7.60 | 150 | 1.02 | 34.07 | 5.41 | 27.32 | 76 | 0.165 |
| 197 | 0.82 | 34.06 | 5.40 | 0.55 | 0.12 | 33.44 | 7.65 | 200 | 0.80 | 34.06 | 5.39 | 27.32 | 75 | 0.204 |
| 247 | 0.63 | — | 5.23 | 0.57 | 0.10 | 34.90 | 7.69 | 250 | 0.62 | 34.06 | 5.22 | 27.34 | 75 | 0.241 |
| 309 | 0.54 | 34.07 | 5.00 | 0.56 | 0.14 | 35.62 | 7.70 | 300 | 0.54 | 34.06 | 5.03 | 27.35 | 74 | 0.279 |
| 398 | 0.36 | 34.09 | 4.83 | 0.57 | 0.10 | 38.53 | 7.75 | 400 | 0.35 | 34.09 | 4.82 | 27.37 | 71 | 0.351 |
| 496 | 0.29 | 34.10 | 4.61 | 0.69 | 0.03 | 40.71 | 7.72 | 500 | 0.28 | 34.10 | 4.60 | 27.39 | 70 | 0.421 |
| 底 | 0.20 | 34.09 | 4.57 | 0.67 | 0.05 | 44.35 | 7.63 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 20 | 2250 | 600 | | | E1 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1014.5 | 9.8 | | | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.72 | 34.39 | 5.84 | 0.10 | 0.06 | 10.91 | 7.83 | 0 | 10.72 | 34.39 | 5.84 | 26.37 | 166 | 0.000 |
| 9 | 10.71 | 34.39 | 5.70 | 0.13 | 0.02 | 13.09 | 8.00 | 10 | 10.70 | 34.39 | 5.69 | 26.37 | 166 | 0.017 |
| 18 | 10.61 | 34.39 | 5.67 | — | — | — | 8.11 | 20 | 10.59 | 34.38 | 5.67 | 26.39 | 164 | 0.033 |
| 28 | 10.54 | 34.38 | 5.67 | 0.20 | 0.05 | 14.54 | 8.10 | 30 | 10.50 | 34.37 | 5.67 | 26.40 | 165 | 0.050 |
| 47 | 10.08 | 34.34 | 5.66 | 0.21 | 0.06 | 16.72 | 8.09 | 50 | 10.05 | 34.34 | 5.66 | 26.45 | 158 | 0.082 |
| 71 | 9.46 | 34.38 | 5.65 | 0.22 | 0.19 | 18.18 | — | 75 | 9.14 | 34.35 | 5.64 | 26.61 | 144 | 0.120 |
| 94 | 7.27 | 34.22 | 5.54 | 0.21 | 0.05 | 22.54 | 7.80 | 100 | 6.60 | 34.17 | 5.48 | 26.85 | 121 | 0.154 |
| 119 | 4.46 | 34.13 | 5.32 | 0.20 | 0.04 | 22.45 | 7.91 | 125 | 3.78 | 34.10 | 5.30 | 27.12 | 95 | 0.181 |
| 141 | 2.23 | 34.05 | 5.44 | 0.21 | 0.05 | 26.17 | 7.94 | 150 | 1.86 | 34.04 | 5.29 | 27.24 | 84 | 0.204 |
| 188 | 1.49 | 34.05 | 5.29 | 0.20 | 0.13 | 27.63 | 7.83 | 200 | 1.36 | 34.05 | 5.27 | 27.28 | 80 | 0.245 |
| 233 | 1.10 | 34.07 | 5.20 | 0.21 | 0.05 | 27.63 | 7.67 | 250 | 0.99 | 34.07 | 5.18 | 27.32 | 76 | 0.284 |
| 292 | 0.85 | 34.07 | 5.14 | 0.20 | 0.04 | 28.35 | 7.65 | 300 | 0.77 | 34.07 | 5.08 | 27.34 | 75 | 0.322 |
| 383 | 0.54 | 34.08 | 4.76 | 0.21 | 0.09 | 38.53 | 7.80 | 400 | 0.50 | 34.08 | 4.73 | 27.36 | 73 | 0.396 |
| 478 | 0.38 | 34.08 | 4.63 | 0.28 | 0.22 | 39.99 | 7.72 | 500 | 0.34 | 34.08 | 4.61 | 27.37 | 72 | 0.418 |
| 底577 | 0.25 | 34.10 | 4.56 | 0.29 | 0.18 | 41.44 | 7.61 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 20 | 1910 | 1.000 | | | E2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1013.7 | 9.4 | | | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D lyn. m |
| 0 | 10.42 | 34.48 | 5.78 | 0.13 | 0.19 | 9.45 | 7.70 | 0 | 10.42 | 34.48 | 5.78 | 26.49 | 155 | 0.000 |
| 9 | 10.25 | 34.50 | 5.81 | 0.13 | 0.03 | 11.63 | 7.76 | 10 | 10.24 | 34.49 | 5.80 | 26.54 | 150 | 0.015 |
| 19 | 10.13 | 34.48 | 5.73 | 0.15 | 0.02 | 12.36 | 7.77 | 20 | 10.10 | 34.47 | 5.72 | 26.55 | 150 | 0.030 |
| 29 | 9.64 | 34.46 | 5.68 | 0.11 | 0.06 | 20.36 | 7.75 | 30 | 9.53 | 34.45 | 5.68 | 26.62 | 142 | 0.045 |
| 50 | 6.82 | 34.28 | 5.59 | 0.55 | 0.19 | 19.63 | 7.90 | 50 | 6.82 | 34.28 | 5.59 | 26.90 | 116 | 0.071 |
| 75 | 3.13 | 34.08 | 5.45 | 0.41 | 0.18 | 17.45 | 7.33 | 75 | 3.13 | 34.08 | 5.45 | 27.16 | 91 | 0.097 |
| 100 | 1.98 | 34.06 | 5.52 | 0.56 | 0.06 | 20.36 | 7.35 | 100 | 1.98 | 34.06 | 5.52 | 27.24 | 84 | 0.119 |
| 125 | 1.50 | 34.05 | 5.74 | 0.55 | 0.13 | 21.08 | 7.63 | 125 | 1.50 | 34.05 | 5.74 | 27.27 | 81 | 0.140 |
| 149 | 1.12 | 34.06 | 5.78 | 0.49 | 0.10 | 31.26 | 7.32 | 150 | 1.11 | 34.06 | 5.77 | 27.30 | 78 | 0.160 |
| 193 | 0.96 | 34.07 | 5.32 | 0.38 | 0.06 | 34.17 | 7.49 | 200 | 0.93 | 34.07 | 5.31 | 27.33 | 76 | 0.198 |
| 242 | 0.79 | 34.08 | 5.29 | 0.42 | 0.02 | 34.62 | 7.35 | 250 | 0.76 | 34.08 | 5.23 | 27.34 | 74 | 0.236 |
| 290 | 0.67 | 34.08 | 4.93 | 0.35 | 0.03 | 37.08 | 7.30 | 300 | 0.64 | 34.09 | 4.91 | 27.35 | 73 | 0.273 |
| 386 | 0.43 | 34.09 | 4.85 | 0.33 | 0.14 | 38.53 | 7.30 | 400 | 0.40 | 34.09 | 4.78 | 27.37 | 71 | 0.345 |
| 485 | 0.28 | 34.11 | 4.40 | 0.45 | 0.10 | 40.71 | 7.35 | 500 | 0.26 | 34.11 | 4.33 | 27.40 | 69 | 0.415 |
| 底582 | 0.26 | 34.10 | 4.55 | 0.55 | 0.11 | 42.89 | 7.40 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 20 | 1530 | 830 | 4 | 14 | NNW | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 3 | 1027.8 | 9.3 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg·at/L | $NO_2$-N μg·at/L | $SiO_2$-Si μg·at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.76 | 34.60 | 5.68 | 0.08 | 0.05 | 10.91 | 7.81 | 0 | 12.76 | 34.60 | 5.68 | 26.15 | 187 | 0.000 |
| 9 | 12.68 | 34.62 | 5.70 | 0.08 | 0.06 | 10.18 | 7.87 | 10 | 12.64 | 34.61 | 5.70 | 26.18 | 184 | 0.019 |
| 18 | 12.34 | 34.57 | 5.64 | 0.07 | 0.07 | 12.36 | 7.90 | 20 | 12.30 | 34.56 | 5.62 | 26.21 | 182 | 0.037 |
| 28 | 12.11 | 34.53 | 5.55 | 0.13 | 0.02 | 13.09 | 7.90 | 30 | 11.93 | 34.50 | 5.55 | 26.24 | 179 | 0.055 |
| 46 | 10.51 | 34.30 | 5.62 | 0.20 | 0.06 | 13.09 | 7.90 | 50 | 10.42 | 34.29 | 5.62 | 26.35 | 169 | 0.090 |
| 69 | 10.44 | 34.33 | 5.62 | 0.17 | 0.14 | 13.81 | 7.71 | 75 | 10.38 | 34.32 | 5.62 | 26.38 | 166 | 0.132 |
| 92 | 10.20 | 4.303 | 5.59 | 0.13 | 0.10 | 13.81 | 7.83 | 100 | 10.18 | 34.31 | 5.57 | 26.40 | 163 | 0.174 |
| 115 | 10.13 | 34.33 | 5.53 | 0.11 | 0.02 | 14.54 | 7.88 | 125 | 10.11 | 34.30 | 5.50 | 26.41 | 163 | 0.215 |
| 139 | 9.33 | 34.25 | 5.47 | 0.10 | 0.05 | 15.27 | 7.92 | 150 | 9.37 | 34.23 | 5.67 | 26.48 | 156 | 0.255 |
| 187 | 6.65 | 34.20 | 5.62 | 0.17 | 0.02 | 17.45 | 7.69 | 200 | 5.46 | 34.16 | 4.44 | 26.98 | 109 | 0.323 |
| 246 | 2.18 | 34.05 | 5.62 | 0.55 | 0.06 | 18.18 | 7.58 | 250 | 1.87 | 34.04 | 4.48 | 27.24 | 84 | 0.372 |
| 286 | 1.14 | 34.04 | 5.59 | 0.49 | 0.08 | 18.90 | 7.56 | 300 | 1.12 | 34.04 | 4.59 | 27.29 | 79 | 0.413 |
| 384 | 0.70 | 34.07 | 5.52 | 0.67 | 0.06 | 23.99 | 7.62 | 400 | 0.71 | 34.07 | 4.45 | 27.27 | 81 | 0.494 |
| 471 | 0.50 | 34.08 | 5.23 | 0.85 | 0.10 | 26.17 | 7.50 | 500 | 0.26 | 34.08 | 4.29 | 27.32 | 77 | 0.574 |
| 底567 | 0.39 | 34.12 | 4.73 | 0.88 | 0.09 | 28.85 | 7.52 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 20 | 1125 | 1840 | 3 | 16 | WNN | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WNW | 3 | 1013.8 | 9.9 | | | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.06 | 34.26 | 5.84 | 0.11 | [illegible] | [illegible] | 7.81 | 0 | 10.06 | 34.24 | 5.84 | 26.37 | 167 | 0.000 |
| 8 | 10.01 | 34.27 | 5.73 | 0.13 | 0.02 | 13.81 | 7.97 | 10 | 9.99 | 34.27 | 5.72 | 26.41 | 163 | 0.016 |
| 16 | 9.98 | 34.28 | 5.71 | 0.11 | 0.06 | 14.54 | 7.82 | 20 | 10.00 | 34.28 | 5.68 | 26.41 | 163 | 0.033 |
| 25 | 10.05 | 34.28 | 5.65 | 0.13 | 0.04 | 16.72 | 7.70 | 30 | 10.06 | 34.28 | 5.64 | 26.41 | 163 | 0.049 |
| 42 | 10.04 | 34.31 | 5.64 | 0.11 | 0.05 | 18.90 | 7.80 | 50 | 10.01 | 34.30 | 5.63 | 26.43 | 161 | 0.082 |
| 63 | 9.92 | 34.29 | 5.62 | 0.13 | 0.04 | 20.36 | 8.00 | 75 | 9.83 | 34.28 | 5.62 | 26.44 | 160 | 0.122 |
| 84 | 9.63 | 34.28 | 5.62 | 0.10 | 0.02 | 21.08 | 7.61 | 100 | 8.61 | 34.25 | 5.61 | 26.61 | 143 | 0.160 |
| 105 | 8.18 | 34.24 | 5.60 | 0.28 | 0.09 | 21.81 | 7.70 | 125 | 5.94 | 34.14 | 5.54 | 26.91 | 116 | 0.193 |
| 126 | 5.94 | 34.14 | 5.54 | 0.24 | 0.13 | 21.81 | 7.78 | 150 | 5.00 | 34.12 | 5.70 | 27.00 | 107 | 0.221 |
| 168 | 4.70 | 34.12 | 5.87 | 0.21 | 0.10 | 22.53 | 7.80 | 200 | 2.65 | 34.01 | 6.00 | 27.15 | 93 | 0.272 |
| 207 | 2.46 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 7.71 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 245 | 1.36 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 7.84 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 329 | 0.73 | 34.05 | 5.45 | 0.53 | 0.10 | 25.45 | 7.83 | 400 | 0.49 | 34.07 | 5.39 | 27.36 | 73 | 0.431 |
| 411 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 505 | 0.41 | 34.08 | 5.32 | 0.48 | 0.07 | 30.53 | 7.50 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 20 | 0415 | | 11 | 4 | WSW | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 0 | 1028.9 | 9.8 | | | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 9.73 | 34.30 | 6.10 | 0.11 | 0.04 | 6.54 | 8.00 | 0 | 9.37 | 34.30 | 6.10 | 26.53 | 151 | 0.000 |
| 8 | 9.76 | 34.34 | 6.01 | 0.14 | 0.09 | 8.00 | 8.09 | 10 | 9.77 | 34.34 | 6.05 | 26.50 | 154 | 0.015 |
| 17 | 9.72 | 34.34 | 5.89 | 0.18 | 0.05 | 10.18 | 8.18 | 20 | 9.71 | 34.34 | 5.88 | 26.51 | 153 | 0.031 |
| 26 | 9.71 | 34.35 | 5.88 | 0.11 | 0.06 | 10.91 | 8.17 | 30 | 9.72 | 34.34 | 5.88 | 26.51 | 153 | 0.046 |
| 44 | 9.53 | 34.32 | 5.89 | 0.17 | 0.02 | 12.36 | 8.10 | 50 | 9.16 | 34.28 | 5.88 | 26.55 | 149 | 0.076 |
| 66 | 7.81 | 34.18 | 5.83 | 0.17 | 0.05 | 13.81 | 8.00 | 75 | 6.97 | 34.14 | 5.80 | 26.77 | 128 | 0.111 |
| 87 | 5.82 | 34.11 | 5.77 | 0.21 | 0.03 | 14.54 | 8.00 | 100 | 4.52 | 34.06 | 5.73 | 27.01 | 106 | 0.141 |
| 109 | 3.71 | 34.03 | 5.71 | 0.32 | 0.07 | 18.18 | 8.00 | 125 | 2.73 | 34.00 | 5.68 | 27.14 | 94 | 0.166 |
| 131 | 2.47 | 34.00 | 5.67 | 0.49 | 0.03 | 18.90 | 7.94 | 150 | 2.03 | 34.00 | 5.66 | 27.20 | 88 | 0.189 |
| 172 | 1.84 | 34.03 | 5.64 | 0.55 | 0.07 | 18.18 | 7.98 | 200 | 1.45 | 34.04 | 5.50 | 27.27 | 81 | 0.232 |
| 214 | 1.29 | 34.05 | 5.43 | 0.63 | 0.12 | 19.63 | 7.94 | 250 | 1.01 | 34.05 | 5.38 | 27.30 | 78 | 0.272 |
| 257 | 0.97 | 34.05 | 5.37 | 0.85 | 0.08 | 26.17 | 7.88 | 300 | 0.78 | 34.05 | 5.25 | 27.32 | 76 | 0.310 |
| 349 | 0.65 | 34.06 | 5.09 | 0.62 | 0.08 | 28.35 | 7.79 | 400 | 0.53 | 34.07 | 4.94 | 27.35 | 74 | 0.385 |
| 440 | 0.46 | 34.08 | 4.82 | 0.76 | 0.11 | 34.17 | 7.96 | 500 | 0.38 | 34.08 | 4.66 | 27.37 | 72 | 0.458 |
| 538 | 0.36 | 34.08 | 4.57 | 0.78 | 0.07 | 35.62 | 7.77 | — | — | — | — | — | — | — |

Anchorage 백사심 (Back Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 25 | 1600 | 40 | 5 | 9 | N3 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1008.5 | 27.3 | 26.0 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.20 | 32.98 | 5.23 | 0.42 | 0.00 | 36.26 | 8.44 | 0 | 26.20 | 33.98 | 5.23 | 21.47 | 634 | 0.000 |
| 10 | 19.74 | 33.49 | 5.66 | 0.17 | 0.00 | — | 8.35 | 10 | 19.74 | 33.49 | 5.66 | 23.70 | 421 | 0.053 |
| 20 | 13.78 | 33.66 | 5.83 | 0.15 | 0.09 | 47.26 | 8.31 | 20 | 13.78 | 33.66 | 5.83 | 25.21 | 276 | 0.088 |
| 30 | 8.79 | 33.77 | 7.19 | 0.27 | 0.04 | 47.26 | 8.39 | 30 | 8.79 | 33.77 | 7.19 | 26.21 | 182 | 0.111 |
| 底 | 7.48 | 33.83 | 7.19 | 0.20 | 0.26 | 32.72 | 8.21 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 25 | 1400 | 380 | 3 | 11 | SW1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1009.2 | 288 | 280 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.80 | 32.97 | 5.10 | 0.21 | 0.06 | 21.81 | 8.22 | 0 | 26.80 | 32.97 | 5.10 | 21.28 | 652 | 00.00 |
| 10 | 16.15 | 33.61 | 6.46 | 0.21 | 0.04 | 25.45 | 8.21 | 10 | 16.15 | 33.61 | 6.46 | 24.66 | 329 | 0.049 |
| 20 | 12.23 | 33.77 | 6.85 | 0.49 | 0.07 | 31.26 | 8.55 | 20 | 12.23 | 33.77 | 6.85 | 25.61 | 239 | 0.070 |
| 30 | 8.85 | 33.78 | 7.19 | 0.41 | — | 41.44 | 8.26 | 30 | 8.85 | 33.78 | 7.19 | 26.21 | 182 | 0.099 |
| 50 | 5.93 | 33.98 | 7.49 | 0.52 | 0.15 | 35.62 | 8.27 | 50 | 5.93 | 33.98 | 7.49 | 26.78 | 128 | 0.130 |
| 75 | 4.23 | 33.95 | 7.08 | 0.36 | 0.14 | 14.54 | 8.18 | 75 | 4.23 | 33.95 | 7.08 | 26.95 | 112 | 0.160 |
| 89 | 2.28 | 33.94 | 6.58 | 0.52 | 0.12 | 15.27 | 8.00 | 100 | 2.28 | 33.94 | 6.58 | 27.13 | 95 | 0.186 |
| 112 | 1.43 | 33.94 | 6.59 | 0.62 | 0.17 | 21.81 | 7.90 | 125 | 1.43 | 33.94 | 6.59 | 27.18 | 89 | 0.209 |
| 150 | 1.03 | 33.97 | 6.30 | — | — | — | 7.99 | 150 | 1.03 | 33.97 | 6.30 | 27.23 | 85 | 0.231 |
| 219 | 0.74 | 33.98 | 6.13 | 0.91 | 0.19 | 3.64 | 7.94 | 200 | 0.74 | 33.98 | 6.13 | 27.26 | 82 | 0.272 |
| 255 | 0.55 | 33.99 | 6.25 | 0.53 | 0.13 | 3.64 | 7.92 | 250 | 0.55 | 33.99 | 6.25 | 27.28 | 80 | 0.313 |
| 320 | 0.49 | 33.99 | 6.13 | 0.98 | 0.03 | — | 7.69 | 300 | 0.49 | 33.99 | 6.13 | 27.29 | 79 | 0.353 |
| 底 | 0.45 | 34.00 | 5.83 | 1.12 | 0.04 | 23.26 | 7.80 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 25 | 1205 | 850 | 4 | 14 | SW1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1009.6 | 27.8 | 26.4 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg at/L | $NO_2$-N μg at/L | $SiO_2$-Si μg·at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.16 | 32.70 | 5.16 | 0.21 | 0.04 | 37.80 | 8.12 | 0 | 26.16 | 32.70 | 5.16 | 21.27 | 653 | — |
| 10 | 24.16 | 33.67 | 7.08 | 0.18 | 0.00 | 35.62 | 8.21 | 10 | 24.16 | 33.67 | 7.08 | 25.14 | 283 | — |
| 20 | 9.26 | 33.67 | 7.31 | 0.14 | 0.00 | 43.62 | 8.21 | 20 | 9.26 | 33.67 | 7.31 | 26.06 | 196 | |
| 30 | 7.58 | 33.80 | 7.58 | 0.21 | 0.00 | 54.53 | 8.19 | 30 | 7.58 | 33.80 | 7.58 | 26.41 | 162 | |
| 50 | 4.71 | 33.91 | 7.22 | 0.48 | 0.01 | 58.89 | 8.09 | 50 | 4.71 | 33.91 | 7.22 | 26.86 | 120 | — |
| 75 | 3.19 | 33.97 | 6.75 | 0.63 | 0.07 | 92.33 | 8.00 | 75 | 3.19 | 33.97 | 6.75 | 27.07 | 100 | — |
| 100 | 2.16 | — | 6.04 | 0.66 | 0.22 | 61.80 | 7.95 | 100 | 2.16 | 33.98 | 6.04 | 27.17 | 91 | — |
| 141 | 1.43 | 33.98 | 6.27 | 0.70 | 0.10 | 56.71 | 7.99 | 125 | 1.43 | 33.98 | 6.27 | 27.22 | 86 | — |
| 150 | 1.10 | 33.97 | 6.46 | 0.90 | 0.07 | 101.78 | 7.95 | 150 | 1.10 | 33.97 | 6.46 | 27.24 | 84 | — |
| 200 | 0.65 | 33.98 | 6.38 | 0.70 | 0.15 | 95.96 | 7.84 | 200 | 0.65 | 33.98 | 6.38 | 27.27 | 81 | — |
| 250 | 0.58 | 33.99 | 6.33 | 0.84 | 0.01 | 12.36 | 7.89 | 250 | 0.58 | 33.99 | 6.33 | 27.28 | 80 | — |
| 313 | 0.51 | 34.00 | 6.25 | 0.91 | 0.04 | 10.91 | 7.85 | 300 | 0.51 | 34.00 | 6.25 | 27.29 | 79 | — |
| 398 | 0.41 | 34.00 | 5.92 | 0.84 | 0.04 | 14.54 | 7.72 | 400 | 0.41 | 34.00 | 5.92 | 27.30 | 78 | — |
| 517 | 0.25 | 34.00 | 5.42 | 0.95 | 0.04 | 18.90 | 7.73 | 500 | 0.25 | 34.00 | 5.42 | 27.31 | 78 | — |
| 594 | 0.21 | 34.01 | 5.29 | 1.05 | 0.15 | 15.99 | 7.54 | 600 | 0.21 | 34.01 | 5.29 | 27.32 | 76 | — |
| 704 | 0.10 | 34.02 | 5.23 | 1.05 | 0.32 | 25.45 | 7.76 | 700 | 0.10 | 34.02 | 5.23 | 27.33 | 75 | — |
| 792 | 0.15 | 34.02 | 5.08 | 0.94 | 0.11 | 24.72 | 7.78 | 800 | 0.15 | 34.02 | 5.08 | 27.33 | 75 | — |
| 底 | 0.09 | 34.02 | 5.13 | 1.23 | 0.06 | 29.08 | 7.75 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 25 | 1915 | 1310 | 3 | 12 | SW1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1009.5 | 27.7 | 26.7 | AC | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ cm³/gl | △D dyn. m |
| 0 | 26.50 | 32.73 | 5.13 | 0.21 | 0.02 | 10.91 | 8.13 | 0 | 26.50 | 32.73 | 5.13 | 21.12 | 661 | 0.000 |
| 10 | 16.87 | 33.54 | 6.56 | 0.07 | 0.14 | 42.89 | 8.22 | 10 | 16.87 | 33.54 | 6.56 | 24.45 | 349 | 0.051 |
| 20 | 11.10 | 33.73 | 7.40 | 0.11 | 0.02 | 43.62 | 8.49 | 20 | 11.10 | 33.73 | 7.40 | 25.79 | 221 | 0.079 |
| 30 | 8.75 | 34.12 | 7.81 | 0.17 | 0.00 | 25.45 | 8.32 | 30 | 8.75 | 34.12 | 7.81 | 26.49 | 155 | 0.098 |
| 50 | 3.24 | 33.95 | 7.91 | 0.24 | 0.14 | 7.45 | 8.17 | 50 | 3.24 | 33.95 | 7.91 | 27.05 | 102 | 0.124 |
| 75 | 1.84 | 33.95 | 6.70 | 0.56 | 0.05 | 50.16 | 8.12 | 75 | 1.84 | 33.95 | 6.70 | 27.16 | 91 | 0.148 |
| 111 | 1.10 | 33.95 | 6.58 | 0.60 | 0.01 | 29.08 | 8.03 | 100 | 1.10 | 33.95 | 6.58 | 27.22 | 86 | 0.170 |
| 129 | 0.91 | 33.95 | 6.69 | 0.73 | 0.15 | 31.99 | 8.12 | 125 | 0.91 | 33.95 | 6.68 | 27.23 | 85 | 0.192 |
| 174 | 0.78 | 33.96 | 6.25 | 0.94 | 0.41 | 54.70 | 8.01 | 150 | 0.71 | 33.96 | 6.41 | 27.24 | 84 | 0.213 |
| 201 | 0.64 | 33.98 | 6.14 | 0.80 | 0.05 | 69.79 | 8.09 | 200 | 0.64 | 33.98 | 6.14 | 27.27 | 81 | 0.254 |
| 249 | 0.58 | 34.00 | 6.06 | 0.97 | 0.04 | 39.99 | 7.95 | 250 | 0.53 | 34.01 | 6.06 | 27.30 | 78 | 0.294 |
| 300 | 0.44 | 34.01 | 6.06 | 0.77 | 0.14 | 51.62 | 7.76 | 300 | 0.41 | 34.02 | 6.04 | 27.31 | 77 | 0.333 |
| 383 | 0.37 | 34.02 | 5.83 | 1.15 | 0.51 | 58.89 | 7.70 | 400 | 0.33 | 34.01 | 5.71 | 27.31 | 77 | 0.410 |
| 500 | 0.24 | 34.01 | 5.36 | 0.80 | 0.13 | 53.80 | 8.00 | 500 | 0.21 | 34.02 | 5.29 | 27.33 | 76 | 0.486 |
| 581 | 0.17 | 34.01 | 5.21 | 0.56 | 0.35 | 58.89 | 7.71 | 600 | 0.12 | 34.01 | 5.20 | 27.32 | 76 | 0.561 |
| 690 | 0.06 | 30.01 | 5.21 | 0.74 | 0.24 | 105.42 | 7.77 | 700 | 0.16 | 34.02 | 5.20 | 27.33 | 75 | 0.635 |
| 776 | 0.09 | 34.02 | 5.19 | 0.70 | 0.14 | 105.42 | 7.74 | 800 | 0.09 | 34.02 | 5.20 | 27.33 | 75 | 0.710 |
| 900 | 0.09 | 34.02 | 5.23 | 0.98 | 0.08 | 29.08 | 7.99 | — | — | — | — | — | — | — |
| 998 | 0.05 | 34.02 | 5.45 | 1.05 | 0.48 | 57.43 | 7.55 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 25 | 0455 | 1340 | | | NW1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1007.5 | 26.2 | 25.4 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg at/L | $NO_2$-N μg at/L | $SiO_2$-Si μg at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.40 | 32.68 | 5.05 | 0.10 | 0.06 | 21.81 | 8.19 | 0 | 27.40 | 32.68 | 5.05 | 20.86 | 692 | 0.000 |
| 10 | 27.34 | 32.75 | 4.90 | 0.13 | 0.01 | 52.34 | 8.32 | 10 | 27.34 | 32.75 | 4.90 | 20.94 | 684 | 0.069 |
| 20 | 18.95 | 33.39 | 5.52 | 0.14 | 0.00 | 26.89 | 8.18 | 20 | 18.95 | 33.39 | 5.52 | 23.83 | 409 | 0.124 |
| 30 | 17.23 | 34.22 | 5.21 | 0.21 | 0.06 | 37.08 | 8.30 | 30 | 17.08 | 34.26 | 5.18 | 24.94 | 302 | 0.159 |
| 50 | 15.31 | 34.44 | 4.67 | 0.41 | 0.13 | 37.08 | 8.25 | 50 | 15.28 | 34.44 | 4.65 | 25.50 | 249 | 0.215 |
| 75 | 14.60 | 34.43 | 4.48 | 0.53 | 0.32 | 34.17 | 8.03 | 75 | 14.46 | 34.43 | 4.47 | 25.67 | 233 | 0.275 |
| 99 | 11.42 | 34.38 | 4.77 | 0.28 | — | 33.44 | 8.09 | 100 | 10.56 | 34.33 | 4.97 | 26.35 | 168 | 0.326 |
| 115 | 6.35 | 34.09 | 5.96 | 0.39 | 0.06 | 25.45 | 7.84 | 125 | 4.96 | 34.04 | 6.06 | 26.94 | 113 | 0.361 |
| 141 | 3.79 | 34.02 | 5.94 | 0.43 | 0.06 | 25.45 | 8.03 | 150 | 3.29 | 34.00 | 6.02 | 27.08 | 99 | 0.388 |
| 196 | 1.95 | 33.96 | 6.56 | 0.59 | 0.10 | 25.45 | 7.93 | 200 | 1.85 | 33.96 | 6.54 | 27.17 | 91 | 0.436 |
| 245 | 1.13 | 33.96 | — | 0.55 | 0.14 | 29.08 | 7.89 | 250 | 1.03 | 33.97 | 6.50 | 27.23 | 85 | 0.480 |
| 262 | 1.06 | 33.96 | 6.35 | 0.74 | 0.05 | 30.53 | 7.87 | 300 | 0.72 | 33.98 | 6.32 | 27.26 | 82 | 0.521 |
| 341 | 0.66 | 33.99 | 6.06 | 0.67 | 0.08 | 31.99 | 7.88 | 400 | 0.49 | 34.01 | 6.04 | 27.30 | 78 | 0.602 |
| 402 | 0.49 | 34.01 | 6.04 | 0.73 | 0.25 | 34.17 | 8.00 | 500 | 0.37 | 34.01 | 5.76 | 27.31 | 78 | 0.680 |
| 507 | 0.37 | 34.06 | 5.73 | 0.77 | 0.14 | 38.53 | 8.00 | 600 | 0.25 | 34.02 | 5.29 | 27.32 | 76 | 0.756 |
| 578 | 0.27 | 34.01 | 5.31 | 1.09 | 0.06 | 46.53 | 7.95 | 700 | 0.18 | 34.02 | 5.33 | 27.33 | 76 | 0.832 |
| 673 | 0.21 | 34.02 | 5.33 | 0.91 | 0.18 | 42.89 | 8.06 | 800 | 0.11 | 34.02 | 5.24 | 27.33 | 75 | 0.906 |
| 759 | 0.14 | 34.02 | 5.31 | 1.20 | 0.08 | 53.07 | 7.80 | — | — | — | — | — | — | — |
| 858 | 0.07 | 34.01 | 5.09 | 0.63 | 0.26 | 71.97 | 7.81 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 24 | 23. 40 | 1450 | | | NW2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1006. 7 | 26. 4 | 25. 2 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27. 20 | 32. 74 | — | 0. 43 | 0. 04 | 43. 62 | 8. 30 | 0 | 27. 20 | 32. 75 | — | 20. 99 | 680 | 0. 000 |
| 10 | 23. 21 | 32. 64 | 6. 17 | 0. 32 | 0. 04 | 29. 81 | 8. 38 | 10 | 23. 21 | 32. 64 | 6. 17 | 22. 11 | 573 | 0. 063 |
| 20 | 18. 09 | 34. 04 | 5. 63 | 0. 29 | 0. 04 | 29. 91 | 8. 35 | 20 | 18. 09 | 34. 04 | 5. 63 | 24. 53 | 341 | 0. 108 |
| 30 | 16. 40 | — | — | — | — | — | — | 70 | 16. 40 | 34. 48 | 5. 65 | 25. 28 | 370 | 0. 139 |
| 50 | 15. 67 | 34. 36 | 5. 83 | 0. 24 | 0. 20 | 29. 08 | 8. 30 | 50 | 15. 67 | 34. 36 | 5. 83 | 25. 35 | 264 | 0. 193 |
| 75 | 14. 70 | 34. 43 | 4. 58 | 0. 27 | 0. 11 | 31. 99 | 8. 20 | 75 | 14. 70 | 34. 43 | 4. 58 | 25. 62 | 238 | 0. 256 |
| 100 | 12. 32 | 34. 40 | 4. 58 | 0. 38 | 0. 10 | 46. 53 | 8. 28 | 100 | 12. 32 | 34. 40 | 4. 58 | 26. 08 | 194 | 0. 311 |
| 122 | 10. 93 | 34. 29 | 5. 33 | 0. 32 | 0. 24 | 34. 90 | 8. 20 | 125 | 10. 84 | 34. 26 | 5. 33 | 26. 25 | 178 | 0. 358 |
| 153 | 10. 19 | 34. 05 | — | 0. 52 | 0. 13 | 12. 36 | 8. 23 | 150 | 10. 25 | 34. 07 | 5. 29 | 26. 20 | 182 | 0. 404 |
| 220 | 5. 38 | 33. 98 | 4. 90 | 0. 38 | 0. 30 | 26. 17 | 8. 15 | 200 | 7. 08 | 33. 96 | 5. 05 | 26. 61 | 143 | 0. 487 |
| 250 | 2. 18 | 33. 97 | 6. 04 | 0. 64 | 0. 16 | 50. 16 | 8. 02 | 250 | 2. 89 | 33. 97 | 5. 76 | 27. 09 | 98 | 0. 548 |
| 320 | 1. 10 | — | 6. 25 | 0. 55 | 0. 20 | 50. 16 | 8. 08 | 300 | 1. 17 | 33. 96 | 6. 28 | 27. 23 | 85 | 0. 594 |
| 494 | 0. 66 | 33. 99 | 7. 42 | 0. 55 | 0. 12 | 37. 08 | 8. 07 | 400 | 0. 67 | 33. 98 | 6. 66 | 27. 27 | 81 | 0. 678 |
| 509 | 0. 41 | 37. 00 | 6. 50 | 0. 84 | 0. 07 | 34. 17 | 8. 00 | 500 | 0. 42 | 34. 00 | 6. 61 | 27. 30 | 78 | 0. 757 |
| 571 | 0. 37 | 34. 01 | 5. 63 | 0. 87 | 0. 16 | 41. 44 | 7. 75 | 600 | 0. 31 | 34. 01 | 5. 63 | 27. 31 | 77 | 0. 835 |
| 674 | 0. 17 | 34. 01 | 6. 25 | 0. 80 | 0. 09 | 51. 62 | 7. 67 | 700 | 0. 16 | 34. 02 | 5. 23 | 27. 32 | 76 | 0. 911 |
| 783 | 0. 17 | 34. 02 | 5. 23 | 1. 03 | 0. 06 | 99. 59 | 7. 87 | 800 | 0. 15 | 34. 02 | 5. 22 | 27. 33 | 76 | 0. 986 |
| 865 | 0. 11 | 34. 02 | — | 0. 88 | 0. 44 | 79. 97 | 8. 89 | — | — | — | — | — | — | — |
| 908 | 0. 11 | 34. 02 | 5. 31 | 0. 74 | 0. 12 | 61. 80 | | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 24 | 1910 | 1650 | | | NW2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1004.1 | 27.3 | 26.6 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.40 | 34.09 | 4.60 | 1.04 | 0.02 | 17.45 | 8.32 | 0 | 27.40 | 34.09 | 4.60 | 21.92 | 590 | 0.000 |
| 10 | 27.10 | 34.11 | 4.71 | 0.07 | 0.00 | 12.36 | 8.32 | 10 | 26.41 | 34.12 | 4.85 | 22.26 | 558 | 0.057 |
| 20 | 19.32 | 34.28 | 6.17 | 0.31 | 0.00 | 61.07 | 8.35 | 20 | 18.77 | 34.29 | 6.24 | 24.56 | 339 | 0.102 |
| 30 | 15.52 | 34.40 | 6.56 | 0.28 | 0.08 | 57.43 | 8.30 | 30 | 15.16 | 34.42 | 6.60 | 25.51 | 249 | 0.132 |
| 50 | 14.09 | 34.40 | 6.58 | 0.17 | 0.03 | 46.53 | 8.20 | 50 | 13.67 | 34.48 | 6.46 | 25.87 | 214 | 0.178 |
| 75 | 11.83 | 34.36 | 5.85 | 0.22 | 0.10 | 47.98 | 8.20 | 75 | 11.59 | 34.35 | 5.79 | 26.18 | 184 | 0.228 |
| 102 | 11.09 | 34.33 | 5.94 | 0.24 | 0.10 | 46.53 | 8.17 | 100 | 10.95 | 34.32 | 6.19 | 26.27 | 176 | 0.274 |
| 139 | 10.79 | 34.31 | 6.56 | 0.34 | 0.09 | 61.80 | 8.12 | 125 | 10.60 | 34.30 | 6.24 | 26.32 | 171 | 0.318 |
| 147 | 10.45 | 34.30 | 5.73 | 0.33 | 0.11 | 34.17 | 8.22 | 150 | 10.60 | 34.29 | 5.67 | 26.32 | 172 | 0.361 |
| 202 | 9.77 | 34.26 | 5.85 | 0.49 | 0.17 | 14.54 | 8.12 | 200 | 7.24 | 34.21 | 5.90 | 26.78 | 127 | 0.437 |
| 227 | 2.32 | — | 6.06 | 0.35 | 0.06 | 18.18 | — | 250 | 1.75 | 34.04 | 6.26 | 27.25 | 83 | 0.491 |
| 300 | 1.36 | 33.95 | 6.56 | 0.43 | 0.02 | 18.18 | 8.00 | 300 | 1.07 | 33.95 | 6.55 | 27.21 | 86 | 0.534 |
| 400 | 0.86 | 33.98 | 6.27 | 0.81 | 0.02 | 32.72 | 8.00 | 400 | 0.75 | 33.99 | 6.25 | 27.27 | 81 | 0.618 |
| 488 | 0.55 | 34.00 | 6.15 | 0.63 | 0.18 | 29.08 | 7.90 | 500 | 0.47 | 34.01 | 5.94 | 27.30 | 78 | 0.697 |
| 577 | 0.40 | 34.02 | 5.60 | 0.61 | 0.16 | 51.62 | 7.80 | 600 | 0.33 | 34.02 | 5.51 | 27.32 | 77 | 0.775 |
| 690 | 0.28 | 34.05 | 5.21 | 1.13 | 0.22 | 47.26 | 7.80 | 700 | 0.23 | 34.02 | 5.43 | 27.33 | 76 | 0.850 |
| 779 | 0.21 | 34.02 | 5.44 | 1.12 | 0.48 | 47.26 | 7.84 | 800 | 0.20 | 34.02 | 5.36 | 27.33 | 76 | 0.925 |
| 878 | 0.20 | 34.02 | 5.31 | 0.77 | 0.12 | 39.99 | 7.85 | — | — | — | — | — | — | — |
| 1008 | 0.09 | 34.02 | 5.24 | 0.94 | 0.50 | 65.43 | 7.70 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 24 | 1505 | 2240 | 3 | 3 | 2 | NW1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1002.6 | 28.1 | 26.0 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$ P μg-at/L | $NO_2$ N μg-at/L | $SiO_2$ Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | $\frac{1}{10^{-7}}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 27.40 | 33.37 | 4.84 | 0.32 | 0.05 | 12.35 | 8.20 | 0 | 27.40 | 33.37 | 4.84 | 21.33 | 624 | 0.000 |
| 10 | 20.41 | 33.89 | 4.90 | 0.13 | 0.03 | 15.99 | 8.27 | 10 | 20.41 | 33.89 | 4.90 | 23.83 | 408 | 0.053 |
| 20 | 16.67 | 34.22 | 5.63 | 0.07 | — | 19.63 | 8.19 | 20 | 16.67 | 34.22 | 5.63 | 25.01 | 295 | 0.083 |
| 30 | 15.33 | 34.34 | 5.92 | 0.42 | 0.10 | 21.81 | 8.08 | 30 | 15.25 | 34.35 | 5.87 | 25.44 | 255 | 0.115 |
| 50 | 14.70 | 34.45 | 4.62 | 0.43 | 0.11 | 15.27 | 8.10 | 50 | 14.70 | 34.45 | 4.63 | 25.63 | 237 | 0.166 |
| 75 | 14.48 | 34.47 | 4.48 | 0.42 | 0.13 | 18.90 | 8.05 | 75 | 14.27 | 34.46 | 4.49 | 25.73 | 227 | 0.223 |
| 105 | 12.23 | 34.37 | 4.79 | 0.24 | 0.30 | 23.26 | 8.02 | 100 | 11.75 | 34.37 | 4.95 | 26.16 | 146 | 0.275 |
| 124 | 9.25 | 34.25 | 5.75 | 0.23 | 0.16 | 22.54 | 8.00 | 125 | 8.63 | 34.22 | 5.82 | 26.58 | 186 | 0.317 |
| 147 | 6.45 | 34.11 | 5.94 | 0.38 | 0.17 | 25.45 | 8.00 | 150 | 5.85 | 34.02 | 5.99 | 26.87 | 119 | 0.351 |
| 173 | 3.44 | 33.99 | 6.15 | 0.43 | 0.14 | 27.78 | 7.99 | 200 | 2.17 | 33.98 | 6.31 | 27.17 | 1 | 0.404 |
| 250 | 0.82 | 33.98 | 6.35 | 0.53 | 0.04 | 22.54 | 7.85 | 250 | 0.79 | 33.98 | 6.33 | 27.26 | 82 | 0.448 |
| 310 | 1.04 | 34.00 | 5.63 | 0.36 | 0.05 | 50.89 | 7.82 | 300 | 1.01 | 33.99 | 6.20 | 27.26 | 82 | 0.489 |
| 387 | 0.93 | 34.00 | 5.60 | 0.35 | 0.04 | 54.38 | 7.85 | 400 | 0.62 | 34.00 | 5.41 | 27.27 | 77 | 0.567 |
| 481 | 0.51 | 34.01 | 5.58 | 1.09 | 0.06 | 47.26 | 9.81 | 500 | 0.46 | 34.01 | 5.48 | 27.30 | 78 | 0.648 |
| 579 | 0.27 | 34.02 | 5.47 | 0.67 | 0.24 | 51.95 | 7.87 | 600 | 0.24 | 34.02 | 5.31 | 27.33 | 76 | 0.728 |
| 710 | 0.18 | 34.02 | 5.68 | 0.67 | 0.18 | 61.80 | 7.80 | 700 | 0.15 | 34.02 | 5.63 | 27.33 | 76 | 0.800 |
| 812 | 0.11 | 34.02 | 4.48 | 0.98 | 0.10 | 50.89 | 7.82 | 800 | 0.11 | 34.02 | 5.33 | 27.33 | 75 | 0.875 |
| 888 | 0.12 | 34.04 | 5.02 | 0.98 | 0.04 | 63.25 | 7.82 | — | — | — | — | — | — | — |
| 926 | 0.09 | 34.03 | 5.00 | 0.73 | 0.06 | 60.16 | 8.20 | — | — | — | — | — | — | — |

# 105선 해 양 관 측 성 적

## Oceanographic Data, Line 105

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 19 | 1035 | 49 | 5 | 13 | NW3 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1015.2 | 8.5 | | Cc | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.66 | 34.49 | 6.22 | 0.07 | 0.07 | 13.81 | 7.82 | 0 | 10.66 | 34.49 | 6.22 | 26.46 | 158 | 0.000 |
| 9 | 10.67 | 34.49 | 6.17 | 0.07 | 0.05 | 14.54 | 8.20 | 10 | 10.68 | 34.49 | 6.17 | 26.46 | 158 | 0.016 |
| 19 | 10.73 | 34.50 | 6.20 | 0.10 | 0.13 | 18.18 | 8.30 | 20 | 10.70 | 34.49 | 6.20 | 26.46 | 158 | 0.032 |
| 29 | 10.29 | 34.47 | 6.13 | 0.08 | 0.18 | 18.90 | 8.34 | 30 | 10.23 | 34.46 | 6.12 | 26.52 | 153 | 0.047 |
| 底 | 9.32 | 34.43 | 5.98 | 0.11 | 0.12 | 22.54 | 8.25 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 19 | 1125 | 203 | 3 | 12 | NW3 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1014.6 | 8.9 | | Cc | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.45 | — | 6.20 | 0.14 | 0.17 | 11.63 | 8.23 | 0 | 10.45 | — | 6.20 | — | — | — |
| 9 | 10.42 | 34.50 | 6.04 | 0.10 | 0.10 | — | 8.31 | 10 | 10.42 | 34.49 | 6.02 | — | — | — |
| 19 | 10.46 | 34.49 | 5.91 | 0.14 | 0.10 | 12.36 | 8.33 | 20 | 10.52 | 34.49 | 5.91 | — | — | — |
| 30 | 10.32 | 34.49 | 5.88 | 0.14 | 0.04 | 13.81 | 8.22 | 30 | 10.32 | 34.49 | 5.88 | — | — | — |
| 49 | 7.12 | 34.26 | 5.84 | 0.17 | 0.06 | 15.27 | 8.22 | 50 | 5.67 | 34.17 | 6.04 | — | — | — |
| 74 | 4.35 | 34.16 | 6.55 | 0.15 | 0.05 | 19.63 | 8.15 | 75 | 4.24 | 34.15 | 6.55 | — | — | — |
| 98 | 2.18 | 34.07 | 6.35 | — | — | — | 7.96 | 100 | 2.10 | 34.06 | 6.34 | — | — | — |
| 123 | 1.58 | 34.07 | 6.31 | 0.31 | 0.05 | 21.81 | 8.08 | 125 | 1.51 | 34.07 | 6.31 | — | — | — |
| 147 | 0.79 | 34.08 | 6.23 | 0.17 | 0.07 | 29.81 | 7.94 | 150 | 0.73 | 34.08 | 6.22 | — | — | — |
| 底 | 0.61 | 34.08 | 5.87 | 0.28 | 0.06 | — | 8.00 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 19 | 1250 | 410 | 4 | 11 | NW 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1013.8 | 9.3 | | Cc | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.00 | 34.49 | 5.63 | 0.07 | 0.08 | 10.18 | 8.12 | 0 | 11.00 | 34.49 | 5.63 | 26.40 | 164 | 0.000 |
| 9 | 11.01 | 34.49 | 5.62 | 0.18 | 0.18 | 10.91 | 8.13 | 10 | 11.01 | 34.48 | 5.64 | 26.39 | 164 | 0.016 |
| 19 | 10.93 | 34.48 | 5.77 | 0.14 | 0.05 | 11.63 | 8.27 | 20 | 10.90 | 34.48 | 5.75 | 26.41 | 163 | 0.033 |
| 29 | 10.51 | 34.50 | 5.49 | 0.18 | 0.03 | 13.81 | 8.17 | 30 | 10.47 | 34.49 | 5.47 | 26.50 | 155 | 0.049 |
| 47 | 5.07 | 34.33 | 5.32 | 0.14 | 0.03 | 15.27 | 8.25 | 50 | 5.87 | 34.32 | 5.32 | 26.63 | 142 | 0.079 |
| 74 | 4.03 | 34.13 | 5.32 | 0.28 | 0.05 | 15.99 | 8.24 | 75 | 3.89 | 34.12 | 5.33 | 27.12 | 95 | 0.108 |
| 91 | 2.34 | 34.06 | 5.47 | — | — | — | 8.00 | 100 | 1.92 | 34.05 | 5.48 | 27.25 | 83 | 0.131 |
| 112 | 1.63 | 34.07 | 5.38 | 0.24 | 0.05 | 19.72 | 7.96 | 125 | 1.44 | 34.06 | 5.45 | 27.28 | 80 | 0.157 |
| 134 | 1.43 | 34.05 | 5.44 | 0.17 | 0.05 | 22.54 | 7.80 | 150 | 1.29 | 34.04 | 5.36 | 27.28 | 80 | 0.171 |
| 188 | 1.02 | 34.06 | 5.15 | 0.14 | 0.06 | 19.63 | 7.80 | 200 | 0.95 | 34.06 | 5.13 | 27.32 | 77 | 0.261 |
| 234 | 0.80 | 34.07 | 5.12 | 0.10 | 0.07 | 21.08 | 7.78 | 250 | 0.72 | 34.07 | 5.13 | 27.34 | 74 | 0.249 |
| 281 | 0.60 | 34.08 | 5.15 | 0.18 | 0.14 | 26.89 | 7.93 | 300 | 0.53 | 34.08 | 5.12 | 27.36 | 73 | 0.285 |
| 底 | 0.38 | 34.09 | 4.76 | 0.17 | 0.03 | 31.26 | 7.93 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 19 | 1645 | 1000 | 3 | 18 | NW 1 | 0.2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 0 | 1012.7 | 11.3 | | As | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | p'H | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.23 | 34.63 | 5.40 | 0.17 | 0.05 | 5.09 | 8.23 | 0 | 13.23 | 34.63 | 5.40 | 26.08 | 194 | 0.000 |
| 9 | 13.23 | 34.64 | 5.34 | 0.10 | 0.15 | 6.54 | 8.28 | 10 | 13.22 | 34.63 | 5.35 | 26.09 | 193 | 0.019 |
| 19 | 13.18 | 34.63 | — | 0.21 | 0.10 | 8.00 | 8.20 | 20 | 13.17 | 34.63 | 5.45 | 26.09 | 193 | 0.039 |
| 29 | 13.16 | 34.63 | 5.33 | 0.17 | 0.03 | 8.72 | 8.36 | 30 | 13.17 | 34.62 | 5.52 | 26.09 | 193 | 0.058 |
| 49 | 12.91 | 34.61 | 5.22 | 0.20 | 0.02 | 8.72 | 8.39 | 50 | 12.78 | 34.61 | 5.21 | 26.16 | 187 | 0.096 |
| 73 | 9.76 | 34.42 | 5.20 | 0.25 | 0.07 | 13.09 | 8.36 | 75 | 9.78 | 34.58 | 5.26 | 26.68 | 137 | 0.137 |
| 97 | 8.38 | 34.14 | 5.91 | 0.24 | 0.02 | 13.81 | 8.20 | 100 | 8.65 | 34.12 | 5.90 | 26.51 | 153 | 0.174 |
| 121 | 3.34 | 34.10 | 5.64 | 0.53 | 0.05 | 15.27 | 8.00 | 125 | 2.94 | 34.09 | 5.62 | 27.19 | 89 | 0.204 |
| 146 | 2.05 | 34.06 | 5.54 | 0.52 | 0.10 | 16.72 | 8.10 | 150 | 1.91 | 34.05 | 5.53 | 27.25 | 83 | 0.226 |
| 177 | 1.26 | 34.06 | 5.52 | 0.52 | 0.07 | 17.45 | 8.08 | 200 | 1.05 | 34.06 | 5.50 | 27.31 | 77 | 0.266 |
| 244 | 0.98 | 34.07 | 5.42 | 0.59 | 0.07 | 18.18 | 7.98 | 250 | 0.95 | 34.07 | 5.40 | 27.32 | 76 | 0.305 |
| 292 | 0.79 | 34.08 | 5.22 | 0.63 | — | 21.81 | 7.89 | 300 | 0.76 | 34.08 | 5.19 | 27.34 | 74 | 0.343 |
| 391 | 0.52 | 34.09 | 4.93 | 0.76 | 0.11 | 26.89 | 7.80 | 400 | 0.50 | 34.09 | 4.90 | 27.37 | 72 | 0.416 |
| 490 | 0.36 | 34.09 | 4.72 | 1.04 | 0.08 | 27.63 | 7.90 | 500 | 0.35 | 34.09 | 4.71 | 27.38 | 71 | 0.487 |
| 底 | 0.32 | 34.10 | 4.73 | 1.15 | 0.05 | 28.35 | 7.90 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color. | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 19 | 2040 | 1250 | | | ESE 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ESE | 3 | 1013.0 | 9.8 | | | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.55 | 34.33 | 5.64 | 0.10 | 0.16 | 6.54 | 8.10 | 0 | 10.55 | 34.33 | 5.64 | 26.35 | 168 | 0.000 |
| 9 | 10.58 | 34.34 | 5.71 | 0.07 | 0.07 | 6.54 | 8.22 | 10 | 10.57 | 34.34 | 5.70 | 26.36 | 168 | 0.017 |
| 19 | 10.55 | 34.34 | 5.62 | 0.14 | 0.22 | 8.72 | 8.07 | 20 | 10.54 | 34.34 | 5.62 | 26.36 | 167 | 0.034 |
| 28 | 10.53 | 34.34 | 5.62 | 0.17 | 0.06 | 9.45 | 8.27 | 30 | 10.52 | 34.33 | 5.62 | 26.37 | 167 | 0.050 |
| 48 | 10.48 | 34.33 | 5.61 | 0.15 | 0.10 | 10.91 | 8.12 | 50 | 10.48 | 34.33 | 5.61 | 26.37 | 167 | 0.084 |
| 71 | 10.53 | 34.34 | 5.62 | 0.17 | 0.05 | 10.91 | 8.20 | 75 | 10.52 | 34.34 | 5.61 | 26.37 | 167 | 0.126 |
| 95 | 10.42 | 34.34 | 5.55 | 0.15 | 0.06 | 11.63 | 8.08 | 100 | 10.34 | 34.33 | 5.54 | 26.39 | 165 | 0.168 |
| 119 | 10.06 | 34.29 | 5.52 | 0.15 | 0.12 | 10.91 | 7.94 | 125 | 10.09 | 34.28 | 5.52 | 26.40 | 164 | 0.209 |
| 143 | 9.89 | 34.29 | 5.52 | — | — | — | 8.04 | 150 | 9.06 | 34.27 | 5.52 | 26.56 | 148 | 0.249 |
| 190 | 5.11 | 34.30 | 5.50 | 0.17 | 0.18 | 10.91 | 8.25 | 200 | 4.05 | 34.25 | 5.51 | 27.21 | 86 | 0.309 |
| 244 | 4.82 | 34.06 | 5.55 | 0.25 | 0.08 | 13.81 | 8.20 | 250 | 4.63 | 34.04 | 5.55 | 26.99 | 108 | 0.359 |
| 293 | 2.90 | 34.02 | 5.54 | 0.28 | 0.12 | 14.54 | 7.98 | 300 | 2.70 | 34.02 | 5.53 | 27.15 | 92 | 0.410 |
| 393 | 1.08 | 34.09 | 5.34 | 0.42 | 0.08 | 21.08 | 8.03 | 400 | 1.20 | 34.09 | 5.31 | 27.34 | 75 | 0.494 |
| 492 | 0.65 | 34.09 | 4.94 | 0.57 | 0.06 | 21.81 | 7.80 | 500 | 0.62 | 34.09 | 4.92 | 27.36 | 73 | 0.568 |
| 底 | 0.41 | 34.11 | 4.83 | 0.70 | 0.02 | 23.26 | 8.00 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 20 | 0030 | 2070 | | | S 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1013.0 | 9.7 | | | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.25 | 34.29 | 6.21 | 0.28 | 0.26 | 1.45 | 7.99 | 0 | 10.25 | 34.29 | 6.21 | 26.37 | 166 | 0.000 |
| 10 | 10.31 | 34.29 | 5.72 | 0.07 | 0.14 | 2.91 | 8.11 | 10 | 10.31 | 34.29 | 5.72 | 26.36 | 167 | 0.017 |
| 20 | 10.27 | 34.28 | 5.73 | — | — | — | 8.00 | 20 | 10.27 | 34.28 | 5.73 | 26.36 | 167 | 0.033 |
| 30 | 10.25 | 34.37 | 5.71 | 0.10 | 0.11 | 2.91 | 8.02 | 30 | 10.25 | 34.37 | 5.71 | 26.44 | 160 | 0.050 |
| 50 | 10.25 | 34.29 | 5.69 | 0.11 | 0.08 | 2.18 | 8.27 | 50 | 10.25 | 34.29 | 5.69 | 26.37 | 166 | 0.083 |
| 75 | 10.36 | 34.34 | 5.61 | 0.14 | 0.04 | 2.91 | 8.21 | 75 | 10.36 | 34.34 | 5.61 | 26.39 | 164 | 0.124 |
| 99 | 9.96 | 34.28 | 5.45 | 0.07 | 0.08 | 3.64 | 8.04 | 100 | 9.96 | 34.28 | 5.45 | 26.42 | 162 | 0.165 |
| 128 | 9.90 | 34.31 | 5.52 | 0.08 | 0.06 | 4.36 | 7.90 | 125 | 9.90 | 34.31 | 5.52 | 26.45 | 159 | 0.206 |
| 152 | 9.53 | 34.31 | 5.53 | 0.11 | 0.10 | 5.09 | 8.00 | 150 | 9.53 | 34.31 | 5.53 | 26.51 | 153 | 0.246 |
| 190 | 6.34 | 34.14 | 5.49 | 0.17 | 0.13 | 11.63 | 8.22 | 200 | 5.50 | 34.11 | 5.58 | 26.94 | 113 | 0.314 |
| 243 | 2.56 | 34.05 | 5.94 | 0.22 | 0.08 | 14.54 | 8.10 | 250 | 2.30 | 34.04 | 5.92 | 27.21 | 87 | 0.364 |
| 287 | 1.47 | 34.05 | 5.73 | 0.14 | 0.07 | 21.08 | 8.00 | 300 | 1.29 | 34.05 | 5.72 | 27.29 | 80 | 0.406 |
| 385 | 0.78 | 34.07 | 5.65 | 0.18 | 0.05 | 23.99 | 7.36 | 400 | 0.73 | 34.07 | 5.56 | 27.34 | 75 | 0.484 |
| 481 | 0.60 | 34.09 | 5.06 | 0.07 | 0.14 | 24.72 | 7.80 | 500 | 0.56 | 34.09 | 4.99 | 27.36 | 72 | 0.557 |
| 底 | 0.41 | 34.10 | 5.82 | 0.14 | 0.19 | 25.45 | 7.97 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Temp. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 20 | 0415 | 1030 | | | WSW 0 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 3 | 1020.9 | 9.8 | | | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 9.75 | 34.39 | 5.91 | 0.11 | 0.06 | 6.54 | 8.09 | 0 | 9.75 | 34.39 | 5.91 | 26.54 | 151 | 0.000 |
| 8 | 9.63 | 34.37 | 5.91 | 0.07 | 0.03 | 7.27 | 8.18 | 10 | 9.59 | 34.36 | 5.93 | 26.54 | 150 | 0.015 |
| 17 | 9.51 | 34.34 | 6.02 | 0.11 | 0.06 | 7.27 | 7.97 | 20 | 9.52 | 34.34 | 6.02 | 26.54 | 150 | 0.030 |
| 26 | 9.49 | 34.35 | 6.01 | 0.07 | 0.02 | 8.00 | 8.04 | 30 | 9.29 | 34.33 | 5.00 | 26.57 | 147 | 0.045 |
| 45 | 9.03 | 34.24 | 5.91 | 0.07 | 0.01 | 9.46 | 8.30 | 50 | 7.53 | 34.21 | 5.86 | 26.73 | 132 | 0.073 |
| 67 | 5.81 | 34.12 | 5.72 | 0.13 | 0.14 | 10.71 | [illegible] | 75 | 4.93 | 34.15 | 5.71 | 26.93 | 109 | 0.103 |
| 89 | 3.65 | 34.05 | 5.71 | 0.22 | 0.06 | 11.63 | 8.10 | 100 | 3.22 | 34.07 | 5.65 | 27.15 | 92 | 0.129 |
| 111 | 2.96 | 34.11 | 5.59 | 0.29 | 0.08 | 12.36 | 7.86 | 125 | 2.38 | 34.07 | 5.55 | 27.23 | 85 | 0.151 |
| 134 | 2.05 | 34.06 | 5.53 | 0.27 | 0.06 | 14.54 | 8.01 | 150 | 1.73 | 34.07 | 5.5 | 27.25 | 83 | 0.172 |
| 177 | 1.47 | 34.06 | 5.50 | 0.33 | 0.07 | 24.72 | 8.05 | 200 | 1.25 | 34.07 | 5.33 | 27.30 | 78 | 0.213 |
| 237 | 1.00 | 34.09 | 5.15 | 0.56 | 0.07 | 25.45 | 7.95 | 250 | 0.93 | 34.09 | 5.11 | 27.35 | 74 | 0.251 |
| 283 | 0.81 | 34.11 | 5.04 | 0.59 | 0.10 | 26.17 | 7.99 | 300 | 0.75 | 34.10 | 4.99 | 27.39 | 72 | 0.287 |
| 376 | 0.56 | 34.08 | 4.79 | 0.57 | 0.12 | 27.63 | 7.68 | 400 | 0.50 | 34.07 | 4.76 | 27.35 | 73 | 0.360 |
| 477 | 0.36 | — | 4.70 | 0.84 | 0.06 | 29.03 | 7.60 | 500 | 0.33 | 34.07 | 4.67 | 27.36 | 72 | 0.433 |
| 575 | 0.30 | 34.09 | 4.55 | 0.84 | 0.08 | 30.53 | 7.93 | — | — | — | — | — | — | — |

8월 (August) 조사선 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 22 | 1538 | 52 | 4 | 9 | 3 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1000.2 | 27.3 | 25.1 | St | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.92 | 32.11 | 5.23 | 0.14 | 0.02 | 11.63 | 8.16 | 0 | 25.92 | 32.11 | 5.23 | 20.90 | 688 | 0.000 |
| 10 | 19.63 | 33.28 | 6.48 | 0.17 | — | 22.54 | 7.81 | 10 | 19.63 | 33.28 | 6.48 | 23.56 | 433 | 0.056 |
| 20 | 13.96 | 33.67 | 6.67 | 0.20 | — | 19.63 | 8.15 | 20 | 13.96 | 33.67 | 6.67 | 25.19 | 279 | 0.092 |
| 30 | 10.78 | 33.79 | 6.98 | 0.21 | — | 10.18 | 8.20 | 30 | 10.78 | 33.79 | 6.98 | 25.89 | 212 | 0.116 |
| — | — | — | — | — | — | — | — | 50 | 7.81 | 33.92 | 7.34 | 26.47 | 157 | 0.153 |
| 50 | 7.81 | 33.92 | 7.34 | 0.21 | 0.06 | 19.90 | 8.90 | — | — | — | — | — | — | — |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 22 | 1630 | 205 | 5 | 10 | N 3 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1000 | 26.8 | 24.7 | St | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.61 | 32.29 | 6.67 | 0.07 | 0.06 | 24.72 | 8.09 | 0 | 25.61 | 32.29 | 6.67 | 21.13 | 666 | 0.000 |
| 10 | 19.88 | 33.34 | 5.52 | 0.07 | 0.02 | 27.63 | 8.21 | 10 | 19.88 | 33.44 | 5.52 | 23.55 | 435 | 0.055 |
| 20 | 13.22 | 33.70 | 6.76 | 0.08 | — | 8.00 | 8.00 | 20 | 13.22 | 33.70 | 6.76 | 25.36 | 262 | 0.090 |
| 30 | 11.29 | 33.76 | 6.90 | 0.13 | — | 9.45 | 8.11 | 30 | 11.29 | 33.76 | 6.90 | 25.78 | 223 | 0.114 |
| 50 | 7.44 | 34.02 | 7.23 | 0.21 | 0.02 | 16.72 | 8.19 | 50 | 7.44 | 34.02 | 7.23 | 26.61 | 144 | 0.151 |
| 75 | 4.54 | 34.01 | 6.46 | 0.48 | 0.06 | 13.81 | 8.10 | 75 | 4.44 | 34.01 | 6.44 | 26.97 | 109 | 0.183 |
| 115 | 2.66 | 33.98 | 6.17 | 0.56 | 0.04 | 31.26 | 8.11 | 100 | 2.54 | 33.98 | 6.18 | 27.13 | 94 | 0.208 |
| 129 | 1.66 | 33.96 | 6.38 | 0.50 | 0.01 | 27.63 | 7.79 | 125 | 1.54 | 33.96 | 6.37 | 27.20 | 88 | 0.231 |
| 145 | 1.13 | 33.97 | 6.27 | 0.49 | 0.04 | 12.63 | 7.71 | 150 | 1.05 | 33.97 | 6.26 | 27.24 | 84 | 0.253 |
| — | — | — | — | — | — | — | — | 200 | 0.82 | 33.99 | 6.32 | 27.26 | 82 | 0.294 |
| 200 | 0.83 | 33.99 | 6.32 | 0.47 | 0.04 | 12.63 | 7.71 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 22 | 1730 | 330 | 4 | 12 | N 3 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1000 | 26.6 | 25.0 | St | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.40 | 32.70 | 5.10 | 0.15 | 0.08 | 28.35 | 7.99 | 0 | 25.40 | 32.70 | 5.10 | 21.50 | 631 | 0.000 |
| 10 | 21.36 | 33.04 | 6.04 | 0.11 | 0.12 | 21.81 | 8.11 | 10 | 21.36 | 33.04 | 6.04 | 22.93 | 495 | 0.056 |
| 20 | 13.72 | 33.67 | 6.75 | — | — | — | 8.15 | 20 | 13.72 | 33.67 | 6.75 | 25.24 | 274 | 0.095 |
| 30 | 10.65 | 33.79 | 7.40 | 0.11 | 0.00 | 14.54 | 8.19 | 30 | 10.65 | 33.79 | 7.40 | 25.92 | 209 | 0.119 |
| 50 | 6.34 | 33.92 | 7.50 | 0.15 | 0.12 | 10.91 | 8.13 | 50 | 6.14 | 33.94 | 7.47 | 26.72 | 133 | 0.153 |
| 75 | 4.72 | 34.04 | 6.02 | 0.38 | 0.08 | 11.63 | 8.01 | 75 | 4.47 | 33.01 | 7.00 | 26.97 | 109 | 0.184 |
| 93 | 2.42 | 33.7[illegible] | 6.31 | 0.6[illegible] | — | 36.51 | 7.93 | 100 | 2.14 | 33.20 | 6.36 | 27.02 | 105 | 0.211 |
| 123 | 1.85 | 33.96 | 5.94 | 0.42 | 0.14 | 30.53 | 7.83 | 125 | 1.79 | 33.96 | 5.93 | 27.18 | 90 | 0.235 |
| 166 | 1.23 | 33.96 | 6.35 | 0.71 | 0.40 | 22.54 | — | 150 | 1.21 | 33.97 | 5.81 | 27.22 | 86 | 0.257 |
| 168 | 1.14 | 33.98 | 5.92 | 0.56 | 0.08 | 18.18 | 7.76 | 200 | 1.08 | 33.98 | 5.94 | 27.25 | 83 | 0.299 |
| 224 | 0.79 | 33.98 | 6.04 | 0.43 | 0.30 | 29.08 | 7.88 | 250 | 0.71 | 33.99 | 6.05 | 27.27 | 81 | 0.341 |
| 306 | 0.56 | 34.0[illegible] | 5.[illegible] | 0.91 | 0.24 | 37.89 | 7.9[illegible] | — | — | — | — | — | — | — |
| 底 | 0.55 | 34.01 | 5.94 | 0.91 | 0.08 | 26.89 | 7.75 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 22 | 2140 | 1470 | | | 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1003.2 | 27.2 | 25.9 | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.19 | 32.47 | 4.79 | 0.08 | 0.18 | 21.81 | 7.70 | 0 | 27.19 | 32.47 | 4.79 | 20.78 | 700 | 0.000 |
| 10 | 26.31 | 34.07 | 6.04 | 0.06 | 0.04 | 21.81 | 8.23 | 10 | 24.42 | 32.85 | 6.05 | 21.92 | 591 | 0.065 |
| 20 | 18.50 | 33.18 | 4.88 | 0.14 | 0.01 | 34.90 | 8.25 | 20 | 17.29 | 33.46 | 6.07 | 24.29 | 365 | 0.112 |
| 30 | 16.87 | 33.97 | 6.23 | 0.13 | 0.04 | 48.71 | 8.30 | 30 | 16.37 | 34.17 | 5.90 | 25.05 | 292 | 0.145 |
| 50 | 15.26 | 34.60 | 4.88 | 0.15 | 0.18 | 26.17 | 7.92 | 50 | 14.93 | 34.59 | 4.61 | 25.69 | 231 | 0.198 |
| 75 | 15.01 | 34.43 | 4.71 | 0.17 | 0.07 | 31.26 | 8.05 | 75 | 14.48 | 34.43 | 4.47 | 25.67 | 233 | 0.256 |
| 100 | 14.35 | 34.44 | 4.48 | 0.29 | 0.10 | 43.62 | 8.03 | 100 | 10.95 | 34.34 | 5.77 | 26.29 | 174 | 0.308 |
| 102 | 11.17 | 34.36 | 5.73 | 0.14 | 0.15 | 25.45 | 8.06 | 125 | 9.12 | 34.21 | 5.80 | 26.50 | 154 | 0.349 |
| 110 | 10.11 | 34.27 | 5.75 | 0.22 | 0.14 | 29.81 | 8.20 | 150 | 6.45 | 34.10 | 5.94 | 26.81 | 125 | 0.385 |
| 160 | 6.11 | 34.09 | 5.96 | 0.28 | 0.14 | 50.89 | 8.17 | 200 | 2.70 | 34.05 | 6.02 | 27.18 | 90 | 0.439 |
| 221 | 3.07 | 34.08 | 6.01 | 0.25 | 0.02 | 46.53 | 8.65 | 250 | 1.65 | 33.94 | 6.19 | 27.17 | 90 | 0.485 |
| 283 | 1.83 | 33.94 | 6.10 | 0.42 | 0.09 | 58.89 | 8.50 | 300 | 1.48 | 33.99 | 6.37 | 27.22 | 86 | 0.529 |
| 331 | 1.60 | 33.98 | 6.35 | 0.57 | 0.18 | 29.08 | 8.22 | 400 | 0.70 | 33.97 | 6.34 | 27.26 | 82 | 0.614 |
| 302 | 0.92 | 33.99 | 6.35 | 0.52 | — | 43.62 | 7.99 | 500 | 0.52 | 33.96 | 5.56 | 27.26 | 82 | 0.696 |
| 350 | 0.60 | 33.95 | 6.25 | 0.77 | 0.37 | 39.99 | 7.81 | 600 | 0.35 | 33.99 | 5.11 | 27.29 | 79 | 0.776 |
| 439 | 0.52 | 33.96 | 5.53 | 0.70 | 0.30 | 82.15 | 7.82 | 700 | 0.19 | 34.03 | 4.91 | 27.34 | 75 | 0.853 |
| 515 | 0.42 | 33.96 | 5.42 | 0.78 | 0.34 | 47.26 | 7.82 | — | — | — | — | — | — | — |
| 617 | 0.31 | 34.01 | 4.90 | 0.70 | 0.18 | 36.35 | 7.82 | — | — | — | — | — | — | — |
| 678 | 0.19 | 34.03 | 5.10 | 0.87 | 0.14 | 61.80 | 7.65 | — | — | — | — | — | — | — |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 23 | 0150 | 1250 | | | W 1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | | 26.8 | 26.0 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.91 | 34.09 | 4.60 | 0.11 | 0.10 | 40.71 | 7.81 | 0 | 26.91 | 34.09 | 4.60 | 22.08 | 575 | 0.000 |
| 10 | 26.99 | 34.09 | 4.50 | 0.14 | 0.06 | 33.44 | 8.01 | 10 | 26.99 | 34.09 | 4.50 | 22.06 | 578 | 0.058 |
| 20 | 20.30 | 34.23 | 5.36 | 0.15 | 0.08 | 37.08 | 8.33 | 20 | 20.30 | 34.23 | 5.36 | 24.12 | 381 | 0.106 |
| 30 | 20.80 | 34.37 | 6.25 | 0.14 | 0.08 | 50.89 | 8.37 | 30 | 15.82 | 34.37 | 5.66 | 25.32 | 266 | 0.138 |
| 50 | 11.36 | 34.39 | 5.65 | 0.29 | 0.14 | 37.90 | 8.40 | 50 | 11.27 | 34.38 | 5.65 | 26.26 | 176 | 0.183 |
| 75 | 10.90 | 34.34 | 5.66 | 0.38 | 0.10 | 49.44 | 8.30 | 75 | 10.91 | 34.34 | 5.69 | 26.30 | 174 | 0.227 |
| 100 | 10.53 | 34.31 | 6.25 | 0.74 | 0.18 | 51.62 | 8.05 | 100 | 10.48 | 34.31 | 6.24 | 26.35 | 168 | 0.270 |
| 125 | 9.57 | 34.27 | 5.96 | 0.56 | 0.15 | 39.99 | 8.21 | 125 | 9.42 | 34.26 | 5.96 | 26.49 | 155 | 0.311 |
| 150 | 7.23 | 34.23 | 5.85 | 0.56 | 0.18 | 60.64 | 8.22 | 150 | 7.61 | 34.14 | 6.04 | 26.67 | 138 | 0.348 |
| 210 | — | 34.08 | 6.04 | 0.39 | 0.72 | 63.25 | 8.32 | 200 | 5.60 | 34.07 | 6.05 | 26.89 | 117 | 0.413 |
| 265 | 4.12 | 34.15 | 6.04 | 0.70 | — | 57.43 | 8.25 | 250 | 4.31 | 34.03 | 6.24 | 27.00 | 107 | 0.470 |
| 300 | 3.42 | 34.00 | 6.35 | 0.35 | 0.18 | 87.24 | 8.29 | 300 | 3.42 | 34.00 | 6.31 | 27.07 | 100 | 0.523 |
| 361 | 1.09 | 33.98 | 5.92 | 0.63 | 0.52 | 52.34 | 7.94 | 400 | 0.94 | 33.98 | 5.92 | 27.25 | 83 | 0.615 |
| 537 | 0.67 | 33.99 | 5.91 | 0.78 | 0.44 | 70.52 | 7.85 | 500 | 0.62 | 33.99 | 5.83 | 27.28 | 80 | 0.697 |
| 584 | 0.47 | 34.00 | 5.47 | 0.74 | 0.22 | 55.98 | 7.88 | 600 | 0.41 | 34.01 | 5.39 | 27.30 | 78 | 0.776 |
| 654 | 0.23 | 34.02 | 5.44 | 1.11 | 0.10 | 61.80 | 7.55 | 700 | 0.27 | 34.02 | 5.13 | 27.32 | 76 | 0.853 |
| 715 | 0.27 | 34.01 | 5.06 | 1.09 | 0.06 | 103.96 | 7.96 | 800 | 0.23 | 34.01 | 5.05 | 27.32 | 76 | 0.928 |
| 816 | 0.16 | 34.02 | 5.10 | 1.05 | 0.10 | 63.25 | 7.86 | — | — | — | — | — | — | — |
| 925 | 0.15 | 34.02 | 4.77 | 0.91 | 0.22 | 81.42 | 7.96 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 21 | 2050 | 2050 | 2 | 27 | SE 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 999.7 | 27.1 | 26.7 | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.37 | 34.13 | 5.23 | 0.18 | 0.09 | 42.44 | 7.80 | 0 | 27.37 | 34.13 | 5.23 | 21.97 | 586 | 0.000 |
| 10 | 25.28 | 34.08 | 5.29 | 0.00 | 0.04 | 39.99 | 8.20 | 10 | 25.28 | 34.08 | 5.29 | 22.58 | 527 | 0.056 |
| 20 | 19.62 | 34.30 | 6.48 | 0.01 | 0.04 | 34.90 | 8.48 | 20 | 19.62 | 34.30 | 6.48 | 24.35 | 359 | 0.106 |
| 30 | 15.88 | 34.38 | 6.67 | 0.03 | 0.04 | 36.35 | 8.38 | 30 | 15.88 | 34.38 | 6.67 | 25.32 | 266 | 0.131 |
| 50 | 13.36 | 34.43 | 5.88 | 0.01 | 0.04 | 65.43 | 8.38 | 50 | 13.36 | 34.43 | 5.88 | 25.89 | 212 | 0.179 |
| 75 | 11.42 | 34.34 | 6.25 | 0.10 | 0.08 | 45.80 | 8.13 | 75 | 11.42 | 34.34 | 6.25 | 26.20 | 182 | 0.229 |
| 100 | 10.83 | 34.29 | 5.96 | 0.00 | 0.05 | 29.08 | 8.18 | 100 | 10.83 | 34.29 | 5.96 | 26.27 | 176 | 0.274 |
| 125 | 10.67 | 34.27 | 6.23 | 0.04 | 0.10 | 31.26 | 8.26 | 125 | 10.67 | 34.27 | 6.23 | 26.29 | 175 | 0.319 |
| 150 | 10.34 | — | — | — | — | — | — | 150 | 10.34 | 34.26 | 6.15 | 26.34 | 169 | 0.362 |
| 200 | 9.77 | 34.23 | 6.04 | 0.11 | 0.09 | 32.72 | 8.12 | 200 | 9.77 | 34.23 | 6.04 | 26.41 | 163 | 0.447 |
| 250 | 6.03 | 34.03 | 6.23 | 0.03 | 0.05 | 47.98 | 8.19 | 250 | 6.03 | 34.03 | 6.23 | 26.81 | 125 | 0.521 |
| 300 | 2.36 | 34.15 | 6.48 | 0.17 | 0.16 | 57.43 | 8.06 | 300 | 2.36 | 34.15 | 6.48 | 27.12 | 95 | 0.577 |
| 387 | 0.92 | 33.98 | 6.06 | 0.29 | 0.08 | 48.71 | 7.99 | 400 | 0.82 | 34.19 | 6.01 | 27.26 | 82 | 0.666 |
| 529 | 0.53 | 34.00 | 5.73 | 0.42 | 0.14 | 64.70 | 8.14 | 500 | 0.49 | 34.00 | 5.68 | 27.30 | 79 | 0.746 |
| 591 | 0.38 | 34.01 | 5.44 | 0.38 | 0.28 | 71.25 | 7.96 | 600 | 0.35 | 34.01 | 5.39 | 27.31 | 77 | 0.824 |
| 625 | 0.27 | 34.01 | 5.21 | 0.35 | 0.22 | 72.70 | 7.89 | 700 | 0.24 | 34.01 | 5.17 | 27.32 | 77 | 0.901 |
| 799 | 0.16 | 34.02 | 5.10 | 0.67 | 0.16 | 73.43 | 7.78 | 800 | 0.16 | 34.02 | 5.10 | 27.33 | 76 | 0.976 |
| 904 | 0.15 | 34.02 | 5.24 | 0.53 | 0.38 | 21.81 | 7.79 | — | — | — | — | — | — | — |
| 1001 | 0.14 | 34.04 | 5.33 | 0.46 | 0.14 | 66.88 | 8.00 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 24 | 1215 | 2215 | | 18 | SW 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1002.5 | 29.1 | 27.0 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.81 | 33.36 | 4.61 | 0.00 | 0.14 | 58.89 | 7.84 | 0 | 26.81 | 33.36 | 4.61 | 21.57 | 625 | 0.000 |
| 10 | 26.05 | 33.34 | 5.00 | 0.00 | 0.06 | 13.81 | 8.00 | 10 | 26.05 | 33.34 | 5.00 | 21.79 | 603 | 0.061 |
| 20 | 18.60 | 33.84 | 6.06 | 0.04 | 0.06 | 12.36 | 8.26 | 20 | 18.60 | 33.84 | 6.06 | 24.25 | 368 | 0.110 |
| 30 | 15.41 | 34.25 | 5.86 | 0.00 | 0.04 | 16.72 | 8.53 | 30 | 15.41 | 34.25 | 5.86 | 25.32 | 266 | 0.142 |
| 50 | 10.31 | 34.01 | 7.19 | 0.03 | 0.04 | 15.99 | 8.38 | 50 | 10.31 | 34.01 | 7.19 | 26.14 | 188 | 0.187 |
| 75 | 6.59 | 34.08 | 6.56 | 0.09 | 0.20 | 12.36 | 8.39 | 75 | 6.42 | 34.07 | 6.54 | 26.79 | 127 | 0.227 |
| 116 | 3.22 | 33.97 | — | 0.08 | 0.26 | 16.72 | 8.26 | 100 | 3.15 | 34.17 | 6.21 | 27.07 | 100 | 0.255 |
| 144 | 2.26 | 33.97 | 6.19 | 0.32 | 0.04 | 25.45 | 8.06 | 125 | 2.22 | 34.17 | 6.20 | 27.15 | 92 | 0.280 |
| 149 | 1.55 | 33.95 | 6.48 | 0.28 | 0.12 | 29.08 | 8.23 | 150 | 1.52 | 34.15 | 6.48 | 27.19 | 89 | 0.302 |
| 202 | 0.92 | 33.98 | 6.04 | 0.31 | 0.06 | 23.26 | 8.02 | 200 | 0.91 | 33.98 | 6.04 | 27.25 | 83 | 0.345 |
| 250 | 0.89 | 33.98 | 5.96 | 0.38 | 0.08 | 36.35 | 7.80 | 250 | 0.88 | 33.98 | 5.95 | 27.26 | 82 | 0.387 |
| 290 | 0.87 | — | 5.63 | 0.42 | 0.13 | 39.26 | — | 300 | 0.86 | 33.99 | 5.59 | 27.27 | 81 | 0.428 |
| 355 | 0.69 | 34.01 | 5.42 | 1.29 | 0.30 | 58.16 | 7.72 | 400 | 0.64 | 34.01 | 5.40 | 27.30 | 79 | 0.508 |
| 473 | 0.35 | 34.02 | 5.31 | 1.01 | 0.17 | 56.71 | 7.69 | 500 | 0.31 | 34.02 | 5.30 | 27.32 | 76 | 0.585 |
| 598 | 0.21 | 34.02 | 5.21 | 0.80 | 0.24 | 49.44 | 7.73 | 600 | 0.19 | 34.02 | 5.14 | 27.33 | 76 | 0.661 |
| 686 | 0.15 | 34.02 | 4.90 | 1.11 | 0.12 | 46.53 | 7.77 | 700 | 0.15 | 34.02 | 4.97 | 27.33 | 76 | 0.736 |
| 776 | 0.15 | 34.02 | 5.10 | 1.13 | 0.11 | 45.80 | 7.80 | 800 | 0.11 | 34.02 | 5.13 | 27.33 | 76 | 0.811 |
| 883 | 0.02 | 34.02 | 5.19 | 0.98 | 0.12 | 65.43 | 7.89 | — | — | — | — | — | — | — |
| 974 | 0.11 | 34.02 | 5.19 | 1.01 | 0.12 | 61.80 | 7.82 | — | — | — | — | — | — | — |

# 104선 해양관측성적

## Oceanographic Data, Line 104

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color. | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 17 | 0820 | 110 | 4 | 10 | SWS 1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 1 | 1014.1 | 10.8 | | AC | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 10.93 | 34.50 | 6.49 | 0.18 | 0.10 | 8.00 | 8.25 | 0 | 10.93 | 34.50 | 6.49 | 26.42 | 162 | 0.000 |
| 10 | 10.92 | 34.51 | 6.41 | 0.17 | 0.09 | 12.36 | 8.23 | 10 | 10.92 | 34.51 | 6.41 | 26.43 | 161 | 0.016 |
| 20 | 9.03 | 34.42 | 6.09 | 0.17 | 0.04 | 15.27 | 8.13 | 20 | 9.03 | 34.42 | 6.09 | 26.68 | 137 | 0.031 |
| 30 | 7.84 | 34.35 | 6.05 | 0.18 | 0.05 | 18.18 | 8.10 | 30 | 7.84 | 34.35 | 6.05 | 26.81 | 125 | 0.044 |
| 50 | 5.46 | 34.21 | 5.76 | 0.48 | 0.07 | 20.36 | 8.12 | 50 | 5.46 | 34.21 | 5.76 | 27.02 | 105 | 0.067 |
| 75 | 2.89 | 34.10 | 5.70 | 0.57 | 0.09 | 21.08 | 8.00 | 75 | 2.89 | 34.10 | 5.70 | 27.20 | 88 | 0.092 |
| 99 | 1.78 | 34.07 | 5.13 | 0.70 | 0.10 | 22.54 | 7.97 | 100 | 1.78 | 34.07 | 5.63 | 27.27 | 81 | 0.113 |
| 底 | 1.44 | 34.07 | 5.50 | 0.85 | 0.18 | 23.26 | 7.90 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 17 | 0616 | 150 | | | NW 1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1013.9 | 10.2 | | C | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg at/L | $NO_2$-N μg at/L | $SiO_3$-Si μg at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 11.73 | 34.53 | 6.21 | 0.38 | 0.05 | 13.09 | 8.15 | 0 | 11.79 | 34.53 | 6.21 | 26.28 | 175 | 0.000 |
| 10 | 11.76 | 34.53 | 6.19 | 0.28 | 0.04 | 14.54 | 8.23 | 10 | 11.76 | 34.53 | 6.19 | 26.29 | 174 | 0.013 |
| 20 | 11.04 | 34.48 | 6.00 | 0.27 | 0.05 | 15.27 | 8.24 | 20 | 11.04 | 34.48 | 6.00 | 26.38 | 165 | 0.034 |
| 30 | 9.98 | 34.48 | 5.92 | 0.18 | 0.04 | 18.18 | 8.20 | 30 | 9.98 | 34.48 | 5.92 | 26.57 | 148 | 0.050 |
| 50 | 5.80 | 34.24 | 5.68 | 0.14 | 0.05 | 22.54 | 8.15 | 50 | 5.80 | 34.24 | 5.68 | 27.00 | 107 | 0.076 |
| 75 | 2.87 | 34.10 | 5.63 | 0.14 | 0.06 | 23.26 | 8.04 | 75 | 2.87 | 34.10 | 5.63 | 27.20 | 88 | 0.100 |
| 95 | 2.02 | 34.07 | 5.82 | 0.14 | 0.15 | 23.99 | 7.90 | 100 | 1.90 | 34.06 | 5.84 | 27.25 | 83 | 0.122 |
| 127 | 1.40 | 34.06 | 5.89 | 0.22 | 0.66 | 25.45 | 7.81 | 125 | 1.43 | 34.05 | 5.90 | 27.28 | 80 | 0.142 |
| 底 | 1.28 | 34.07 | 5.77 | 0.28 | 0.08 | 26.89 | 8.07 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | SWell |
|---|---|---|---|---|---|---|---|
| 07 | 17 | 0300 | 550 | | | ESE 1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ESE | 4 | 1014.3 | 11.4 | | C | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.89 | 34.55 | 6.23 | 0.07 | 0.02 | 10.91 | 8.12 | 0 | 11.88 | 34.55 | 6.23 | 26.28 | 175 | 0.000 |
| 10 | 11.90 | 34.56 | 6.28 | 0.28 | 0.04 | 13.81 | 8.20 | 10 | 11.90 | 34.56 | 6.28 | 26.29 | 174 | 0.017 |
| 19 | 11.78 | 34.54 | 6.10 | 0.18 | 0.04 | 14.54 | 8.34 | 20 | 11.78 | 34.54 | 6.09 | 26.29 | 174 | 0.035 |
| 29 | 11.83 | 34.55 | 6.09 | 0.10 | 0.03 | 15.99 | 8.36 | 30 | 11.81 | 34.54 | 6.09 | 26.29 | 174 | 0.052 |
| 49 | 11.32 | 34.52 | 6.00 | 0.08 | 0.02 | 16.72 | 8.31 | 50 | 11.32 | 34.52 | 6.00 | 26.36 | 167 | 0.087 |
| 74 | 11.06 | 34.48 | 6.01 | 0.11 | 0.02 | 17.45 | 8.31 | 75 | 11.06 | 34.48 | 6.01 | 26.38 | 166 | 0.129 |
| 99 | 10.03 | 34.39 | 5.98 | 0.55 | 0.11 | 18.18 | 8.24 | 100 | 11.03 | 34.39 | 5.98 | 26.49 | 155 | 0.169 |
| 124 | 6.90 | 34.31 | 6.15 | 0.42 | 0.15 | 18.90 | 8.18 | 125 | 6.90 | 34.31 | 6.15 | 26.28 | 175 | 0.211 |
| 149 | 4.95 | 34.30 | 6.01 | 0.46 | 0.11 | 19.63 | 8.22 | 150 | 4.95 | 34.20 | 6.01 | 27.07 | 100 | 0.246 |
| 199 | 1.62 | 34.17 | 5.88 | 0.63 | 0.08 | 21.08 | 8.05 | 200 | 1.62 | 34.17 | 5.88 | 27.36 | 73 | 0.290 |
| 227 | 1.26 | 34.06 | 5.97 | 0.67 | 0.03 | 23.26 | 8.04 | 250 | 1.12 | 34.04 | 5.95 | 27.29 | 79 | 0.328 |
| 300 | 0.98 | 34.07 | 5.81 | 0.61 | 0.02 | 25.43 | 7.99 | 300 | 0.98 | 34.07 | 5.81 | 27.32 | 76 | 0.367 |
| 366 | 0.66 | 34.09 | 5.67 | 0.84 | 0.02 | 29.08 | 7.90 | 400 | 0.54 | 34.09 | 5.58 | 27.37 | 72 | 0.441 |
| 510 | 0.42 | 34.10 | 5.39 | 0.78 | 0.01 | 29.81 | 7.92 | 500 | 0.41 | 34.09 | 5.31 | 27.37 | 71 | 0.513 |
| 底 | 0.42 | 34.09 | 5.28 | 0.87 | 0.02 | 35.62 | 7.80 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 16 | 2235 | 600 | | | SSW 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1015.5 | 9.8 | | | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T °C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T °C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ cm³/g | ΔD dyn. m |
| 0 | 10.10 | 34.25 | 6.41 | 0.25 | 0.08 | 11.63 | 8.22 | 0 | 10.10 | 34.25 | 6.41 | 26.37 | 166 | 0.000 |
| 9 | 10.10 | 34.21 | 6.43 | 0.23 | 0.06 | 12.36 | 8.26 | 10 | 10.10 | 34.21 | 6.42 | 26.34 | 169 | 0.017 |
| 19 | 10.12 | 34.23 | 6.31 | 0.71 | 0.09 | 13.09 | 8.27 | 20 | 10.12 | 34.22 | 6.31 | 26.35 | 168 | 0.034 |
| 29 | 10.14 | 34.22 | 6.29 | 0.29 | 0.10 | 15.27 | 8.23 | 30 | 10.13 | 34.22 | 6.29 | 26.34 | 169 | 0.051 |
| 47 | 10.07 | 34.23 | 6.33 | 0.42 | 0.05 | 16.72 | 8.26 | 50 | 10.06 | 34.22 | 6.33 | 26.36 | 167 | 0.084 |
| 71 | 10.03 | 34.22 | 6.30 | 0.13 | 0.09 | 18.18 | 8.19 | 75 | 10.03 | 34.21 | 6.29 | 26.36 | 168 | 0.127 |
| 97 | 10.03 | 34.22 | 6.25 | — | — | — | 8.25 | 100 | 10.02 | 34.22 | 6.24 | 26.36 | 167 | 0.169 |
| 118 | 9.99 | 34.23 | 6.22 | 0.17 | 0.07 | 23.99 | 8.30 | 125 | 9.99 | 34.23 | 6.21 | 26.37 | 166 | 0.211 |
| 142 | 10.02 | 34.24 | 6.20 | 0.21 | 2.07 | 30.53 | 8.29 | 150 | 10.04 | 34.24 | 6.21 | 26.37 | 164 | 0.253 |
| 140 | 10.01 | 34.25 | 6.21 | 0.25 | 0.03 | 34.17 | 8.27 | 200 | 10.03 | 34.26 | 6.20 | 26.39 | 164 | 0.338 |
| 234 | 9.03 | 34.27 | 6.11 | 0.21 | 0.05 | 35.53 | 8.10 | 250 | 7.34 | 34.15 | 6.11 | 26.73 | 133 | 0.414 |
| 297 | 4.96 | 34.04 | 6.15 | 0.31 | 0.02 | 34.29 | 8.10 | 300 | 3.21 | 34.00 | 6.13 | 27.09 | 98 | 0.473 |
| 364 | 1.48 | 34.06 | 6.10 | 0.60 | 0.03 | 42.89 | 8.12 | 400 | 1.06 | 34.07 | 6.11 | 27.32 | 76 | 0.561 |
| 497 | 0.81 | 34.10 | 5.87 | 0.41 | 0.06 | 45.80 | 8.02 | 500 | 0.79 | 34.10 | 5.85 | 27.36 | 73 | 0.636 |
| 598 | 0.56 | 34.09 | — | 0.24 | 0.13 | 47.44 | 7.93 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 16 | 1900 | 1,002 | | | NNW 1 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1014.2 | 9.6 | | AS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.06 | 34.25 | 6.48 | 0.03 | 0.15 | 18.90 | 8.20 | 0 | 10.06 | 34.25 | 6.48 | 26.38 | 166 | 0.000 |
| 10 | 10.05 | 34.24 | 6.41 | 0.01 | 0.06 | 21.08 | 8.15 | 10 | 10.05 | 34.24 | 6.40 | 26.37 | 166 | 0.017 |
| 20 | 10.08 | 34.25 | 6.36 | 0.03 | 0.03 | 20.36 | 7.98 | 20 | 10.04 | 34.25 | 6.36 | 26.38 | 166 | 0.033 |
| 30 | 9.90 | 34.25 | 6.36 | 0.03 | 0.05 | 21.08 | 8.01 | 30 | 9.88 | 34.25 | 6.35 | 26.41 | 163 | 0.050 |
| 50 | 9.95 | 34.26 | 6.29 | 0.06 | 0.02 | 22.54 | 8.12 | 50 | 9.95 | 34.26 | 6.28 | 26.40 | 163 | 0.083 |
| 75 | 9.95 | 34.26 | 6.22 | 0.42 | 0.05 | 26.17 | 8.22 | 75 | 9.95 | 34.26 | 6.22 | 26.40 | 163 | 0.124 |
| 97 | 9.94 | 34.27 | 6.20 | 0.57 | 0.02 | 26.89 | 8.14 | 100 | 9.95 | 34.27 | 6.20 | 26.41 | 162 | 0.165 |
| 129 | 9.63 | 34.29 | 6.20 | 0.66 | 0.04 | 29.81 | 8.18 | 125 | 9.73 | 34.23 | 6.20 | 26.46 | 158 | 0.205 |
| 152 | 8.53 | 34.28 | 6.18 | — | 0.02 | 31.26 | 8.13 | 150 | 8.75 | 34.28 | 6.18 | 26.62 | 143 | 0.244 |
| 181 | 3.87 | 34.03 | 6.14 | 0.41 | 0.03 | 32.72 | 8.10 | 200 | 2.82 | 34.00 | 6.16 | 27.13 | 95 | 0.304 |
| 237 | 2.38 | 34.08 | 6.10 | 0.38 | 0.03 | 34.17 | 8.04 | 250 | 2.15 | 34.06 | 6.19 | 27.23 | 85 | 0.349 |
| 287 | 1.43 | 34.07 | 6.12 | 0.49 | 0.01 | 34.90 | 7.97 | 300 | 1.29 | 34.07 | 6.12 | 27.30 | 78 | 0.391 |
| 334 | 0.83 | 34.07 | 6.05 | 0.57 | — | — | 7.93 | 400 | 0.77 | 34.07 | 5.97 | 27.34 | 75 | 0.467 |
| 482 | 0.55 | 34.10 | 5.51 | 0.74 | 0.03 | 35.62 | 7.90 | 500 | 0.50 | 34.10 | 5.45 | 27.38 | 71 | 0.540 |
| BE | 0.35 | 34.10 | 5.31 | 0.67 | — | 38.53 | 8.00 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 16 | 1415 | 1,000 | 4 | 9 | NW 2 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1013 | 11.4 | | AS | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$ -P μg-at/L | $NO_2$ -N μg-at/L | $SiO_2$ -Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 8.21 | 34.25 | 6.92 | 0.07 | 0.06 | 30.53 | 7.82 | 0 | 8.21 | 34.25 | 6.92 | 26.67 | 138 | 0.000 |
| 8 | 8.23 | 34.24 | 6.87 | 0.06 | 0.06 | 34.17 | 8.16 | 10 | 8.20 | 34.25 | 6.87 | 26.67 | 138 | 0.014 |
| 16 | 8.12 | 34.25 | 6.89 | 0.03 | 0.06 | 33.44 | 8.22 | 20 | 8.11 | 34.24 | 6.90 | 26.69 | 136 | 0.028 |
| 24 | 8.08 | 34.24 | 6.91 | 0.04 | 0.06 | 34.17 | 8.78 | 30 | 7.27 | 34.22 | 6.86 | 26.72 | 133 | 0.041 |
| 40 | 6.98 | 34.18 | 6.75 | 0.03 | 0.06 | 35.62 | 7.55 | 50 | 6.43 | 34.13 | 6.74 | 26.84 | 122 | 0.067 |
| 60 | 5.61 | 34.09 | 6.75 | 0.07 | 0.06 | 38.53 | 7.98 | 75 | 3.85 | 34.04 | 6.77 | 27.06 | 101 | 0.095 |
| 80 | 3.15 | 34.03 | 6.77 | 0.04 | 0.09 | 37.08 | 8.11 | 100 | 3.45 | 34.02 | 6.74 | 27.18 | 90 | 0.119 |
| 101 | 2.45 | 34.03 | 6.74 | 0.03 | 0.07 | 38.53 | 8.08 | 125 | 3.17 | 34.05 | 6.65 | 27.14 | 94 | 0.142 |
| 121 | 2.78 | 34.03 | 6.64 | 0.08 | 0.06 | 39.26 | 8.40 | 150 | 2.48 | 34.18 | 6.72 | 27.00 | 107 | 0.167 |
| 161 | 2.33 | 34.24 | 6.76 | 0.04 | 0.07 | 40.71 | 8.33 | 200 | 2.55 | 34.09 | 6.75 | 27.03 | 104 | 0.221 |
| 202 | 2.48 | 34.09 | 6.75 | 0.01 | 0.06 | 42.89 | 8.20 | 250 | 2.51 | 34.02 | 6.71 | 27.17 | 90 | 0.270 |
| 242 | 2.76 | 34.03 | 6.77 | 0.10 | 0.06 | 43.62 | 8.21 | 300 | 1.55 | 34.01 | 6.43 | 27.24 | 84 | 0.314 |
| 323 | 1.36 | 34.03 | 6.31 | 0.07 | 0.14 | 45.00 | 8.18 | 400 | 0.93 | 34.07 | 6.69 | 27.33 | 75 | 0.394 |
| 404 | 0.93 | 34.08 | 5.70 | 0.15 | 0.10 | 45.80 | 7.70 | 500 | — | — | — | — | — | — |
| 底485 | 0.63 | 34.10 | 5.53 | 0.22 | 0.07 | 46.53 | 7.64 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 15 | 16 | 1020 | 940 | 4 | 11 | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1012.5 | 11.9 | 11.7 | As | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D·T $10^{-5}$ $cm^3/g$ | △D dyn·m |
| 0 | 9.58 | 34.34 | 6.68 | 0.06 | 0.08 | 18.18 | 7.89 | 0 | 9.58 | 34.34 | 6.68 | 26.53 | 152 | 0.000 |
| 9 | 9.34 | 34.33 | 6.72 | 0.01 | 0.08 | 19.63 | 8.02 | 10 | 9.34 | 34.32 | 6.72 | 26.56 | 149 | 0.015 |
| 19 | 9.39 | 34.32 | 6.66 | 0.03 | — | 21.08 | 8.27 | 20 | 9.38 | 34.32 | 6.66 | 26.54 | 150 | 0.030 |
| 29 | 9.25 | 34.33 | 6.64 | 0.08 | 0.08 | 21.81 | 8.20 | 30 | 9.22 | 34.32 | 6.64 | 26.58 | 147 | 0.045 |
| 51 | 7.42 | 34.19 | 6.62 | 0.24 | 0.08 | 23.26 | 8.28 | 50 | 8.04 | 34.23 | 6.64 | 26.68 | 137 | 0.073 |
| 75 | 4.32 | 34.04 | 6.42 | 0.41 | 0.14 | 25.45 | 8.11 | 75 | 4.32 | 34.08 | 6.42 | 27.04 | 103 | 0.103 |
| 100 | 3.22 | 34.03 | 6.43 | 0.47 | 0.06 | 26.89 | 7.86 | 100 | 3.22 | 34.04 | 6.42 | 27.12 | 95 | 0.128 |
| 125 | 2.31 | 34.07 | 6.21 | 0.45 | 0.10 | 29.68 | 7.98 | 125 | 2.34 | 34.07 | 6.22 | 27.23 | 85 | 0.051 |
| 149 | 1.57 | 34.07 | 6.09 | 0.28 | 0.04 | 30.53 | 7.70 | 150 | 1.55 | 34.07 | 6.09 | 27.28 | 80 | 0.172 |
| 199 | 1.11 | 34.08 | 5.89 | 0.25 | 0.02 | 31.26 | 7.76 | 200 | 1.09 | 34.08 | 5.85 | 27.32 | 76 | 0.211 |
| 247 | 0.71 | 34.10 | 5.57 | 0.28 | 0.10 | 31.99 | 7.92 | 250 | 0.70 | 34.10 | 5.57 | 27.36 | 72 | 0.248 |
| 297 | 0.50 | 34.12 | 5.45 | 0.43 | 0.16 | 33.72 | 7.70 | 300 | 0.34 | 34.12 | 5.45 | 27.37 | 70 | 0.284 |
| 346 | 0.37 | 34.12 | 5.31 | 0.24 | 0.09 | 34.17 | 7.78 | 400 | 0.38 | 34.12 | 5.31 | 27.40 | 69 | 0.353 |
| 427 | 0.29 | 34.11 | 5.21 | 0.60 | 0.08 | 40.71 | 7.62 | 500 | 0.28 | 34.11 | 5.21 | 27.39 | 69 | 0.422 |
| 588 | 0.22 | 34.11 | 5.13 | 0.85 | 0.10 | 45.07 | 7.70 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 17 | 16 | 0530 | 350 | | | SW 1 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1012.1 | 11.4 | | Cu | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.49 | 34.63 | 5.73 | 0.20 | 0.47 | 13.09 | 8.06 | 0 | 12.49 | 34.63 | 5.73 | 26.23 | 180 | 0.000 |
| 9 | 12.53 | 34.64 | 5.63 | 0.27 | 0.51 | 13.81 | 8.20 | 10 | 12.52 | 34.64 | 5.64 | 26.23 | 180 | 0.018 |
| 18 | 12.49 | 34.64 | 5.71 | 0.15 | 0.59 | 14.54 | 8.31 | 20 | 12.48 | 34.64 | 5.69 | 26.24 | 179 | 0.036 |
| 28 | 12.49 | 34.64 | 5.60 | 0.29 | 0.35 | 15.27 | 8.13 | 30 | 12.50 | 34.63 | 5.58 | 26.22 | 180 | 0.054 |
| 47 | 12.56 | 34.54 | 5.51 | 0.21 | 0.42 | 17.45 | 8.28 | 50 | 12.54 | 34.53 | 5.52 | 26.14 | 188 | 0.091 |
| 70 | 11.80 | 34.46 | 5.62 | 0.28 | 0.19 | 18.18 | 8.10 | 75 | 11.28 | 34.42 | 5.63 | 26.29 | 174 | 0.137 |
| 97 | 10.28 | 34.31 | 5.64 | 0.21 | 0.08 | 23.99 | 7.65 | 100 | 10.20 | 34.41 | 5.67 | 26.59 | 145 | 0.177 |
| 117 | 9.21 | 34.57 | 5.55 | 0.17 | 0.09 | 24.72 | 7.86 | 125 | 9.55 | 34.30 | 5.25 | 26.42 | 162 | 0.216 |
| 135 | 8.51 | 34.12 | 5.04 | 0.14 | 0.14 | 26.17 | 7.85 | 150 | 1.55 | 34.11 | 4.99 | 27.32 | 77 | 0.246 |
| 140 | 1.34 | 34.12 | 4.98 | 0.18 | 0.05 | 28.35 | 8.00 | 200 | 1.33 | 34.08 | 5.16 | 27.31 | 77 | 0.285 |
| 188 | 1.06 | 34.09 | 5.00 | 0.32 | 0.06 | 30.53 | 7.65 | 250 | 0.95 | 34.09 | 4.96 | 27.34 | 75 | 0.323 |
| 底 | 0.85 | 34.09 | 4.91 | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 19 | 16 | 0150 | 602 | | | SSW 1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 2 | 1013.3 | 9.8 | | | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.72 | 33.91 | 5.81 | 0.07 | 0.09 | 8.00 | 7.70 | 0 | 10.72 | 33.91 | 5.81 | 26.00 | 202 | 0.000 |
| 9 | 10.73 | 34.42 | 5.76 | 0.17 | 0.10 | 13.09 | 8.03 | 10 | 10.73 | 34.43 | 5.77 | 26.41 | 163 | 0.018 |
| 19 | 10.76 | 34.44 | 5.87 | 0.18 | 0.13 | 13.81 | 8.15 | 20 | 10.75 | 34.42 | 5.87 | 26.39 | 164 | 0.035 |
| 29 | 10.73 | 34.33 | 5.79 | 0.17 | 0.09 | 13.81 | 8.22 | 30 | 10.72 | 34.33 | 5.79 | 26.32 | 171 | 0.051 |
| 49 | 10.52 | 34.43 | 5.79 | 0.12 | 0.72 | 14.54 | 7.87 | 50 | 10.51 | 34.43 | 5.79 | 26.44 | 160 | 0.081 |
| 74 | 10.17 | 34.40 | 5.71 | 0.10 | 0.04 | 14.54 | 7.90 | 75 | 10.17 | 34.40 | 5.71 | 26.47 | 157 | 0.125 |
| 99 | 9.25 | 34.27 | 5.60 | 0.13 | 0.08 | 13.81 | 7.99 | 100 | 9.19 | 34.26 | 5.60 | 26.53 | 151 | 0.163 |
| 124 | 7.50 | 34.19 | 5.63 | 0.20 | 0.04 | 15.99 | 8.10 | 125 | 7.40 | 34.18 | 5.63 | 26.74 | 131 | 0.199 |
| 149 | 5.12 | 34.13 | 5.52 | 0.28 | 0.04 | 21.08 | 8.00 | 150 | 5.02 | 34.12 | 5.52 | 27.00 | 106 | 0.229 |
| 187 | 2.15 | 34.09 | 5.42 | 0.36 | 0.03 | 29.81 | 7.74 | 200 | 1.70 | 34.08 | 5.39 | 27.29 | 80 | 0.276 |
| 235 | 1.18 | 34.09 | 5.32 | 0.56 | 0.04 | 31.99 | 7.78 | 250 | 1.03 | 34.08 | 5.31 | 27.33 | 75 | 0.315 |
| 286 | 0.82 | 34.08 | 5.31 | 0.78 | 0.06 | 32.72 | 7.68 | 300 | 0.79 | 34.08 | 5.30 | 27.34 | 74 | 0.353 |
| 384 | 0.86 | 34.10 | 5.23 | 0.83 | — | 35.62 | 7.65 | 400 | 0.71 | 34.10 | 5.24 | 27.36 | 72 | 0.426 |
| 482 | 0.79 | 34.10 | 5.14 | 0.87 | 0.06 | 39.26 | 7.50 | 500 | 0.75 | 34.10 | 5.06 | 27.36 | 73 | 0.499 |
| 底 | 0.51 | 34.10 | 4.42 | 0.59 | 0.07 | 38.53 | 7.60 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 21 | 15 | 2155 | 600 | | | SSW 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1014.6 | 13.7 | | | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 9.68 | 34.35 | 5.91 | 0.15 | 0.02 | 10.18 | 7.79 | 0 | 9.68 | 34.35 | 5.91 | 26.52 | 152 | 0.000 |
| 10 | 9.73 | 34.34 | 5.97 | 0.17 | 0.02 | 8.45 | 7.98 | 10 | 9.73 | 34.34 | 5.97 | 26.50 | 154 | 0.015 |
| 20 | 9.73 | 34.34 | 6.01 | 0.07 | 0.02 | 12.36 | 8.14 | 20 | 9.93 | 34.34 | 6.01 | 26.47 | 157 | 0.031 |
| 30 | 9.71 | 34.34 | — | 0.21 | 0.06 | 14.54 | 8.08 | 30 | 9.71 | 34.34 | 6.02 | 26.51 | 154 | 0.046 |
| 50 | 9.68 | 34.35 | 6.01 | 0.16 | 0.02 | 15.99 | 7.90 | 50 | 9.68 | 34.35 | 6.01 | 26.52 | 152 | 0.077 |
| 75 | 9.40 | 34.33 | 5.99 | 0.10 | 0.03 | 15.27 | 7.91 | 75 | 9.40 | 34.33 | 5.99 | 26.55 | 149 | 0.115 |
| 97 | 6.97 | 34.17 | 6.01 | 0.21 | 0.06 | 16.72 | 7.88 | 100 | 5.22 | 34.10 | 5.93 | 26.96 | 111 | 0.148 |
| 125 | 5.82 | 34.12 | 5.93 | 0.12 | 0.03 | 18.18 | 7.97 | 125 | 5.82 | 34.07 | 5.93 | 27.11 | 97 | 0.174 |
| 150 | 3.57 | 34.07 | 5.93 | 0.45 | 0.03 | 21.08 | 7.88 | 150 | 3.57 | 34.07 | 5.79 | 27.22 | 86 | 0.197 |
| 199 | 0.98 | 34.09 | — | 0.92 | 0.01 | 24.72 | 7.74 | 200 | 0.86 | 34.09 | 5.44 | 27.34 | 74 | 0.237 |
| 249 | 0.73 | 34.09 | 5.02 | 0.88 | 0.02 | 25.45 | 7.68 | 250 | 0.72 | 34.09 | 5.01 | 27.35 | 73 | 0.274 |
| 298 | 0.52 | 34.10 | 5.78 | 0.95 | 0.07 | 28.35 | 7.60 | 300 | 0.51 | 34.10 | 5.78 | 27.37 | 71 | 0.310 |
| 398 | 0.36 | 34.11 | 4.74 | 0.99 | 0.09 | 31.26 | 7.62 | 400 | 0.35 | 34.11 | 4.74 | 27.39 | 70 | 0.381 |
| 498 | 0.22 | 34.11 | 4.69 | 0.91 | 0.16 | 33.44 | 7.73 | 500 | 0.21 | 34.11 | 4.69 | 27.40 | 69 | 0.450 |
| 底 | 0.23 | 34.11 | 4.64 | 0.99 | 0.10 | 37.80 | 7.64 | — | — | — | — | — | — | — |

8월 (August)　　조사선 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 21 | 1315 | 123 | 4 | 16 | NW 1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1008.2 | 26.1 | 23.4 | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.50 | 33.33 | 5.47 | 0.14 | 0.02 | 22.54 | 7.91 | 0 | 25.50 | 33.33 | 5.47 | 21.95 | 588 | 0.000 |
| 10 | 21.08 | 33.54 | 6.35 | 0.07 | 0.03 | 46.53 | 8.12 | 10 | 21.08 | 33.54 | 6.35 | 23.38 | 451 | 0.052 |
| 20 | 15.50 | 34.04 | 6.17 | 0.14 | 0.02 | 16.72 | 8.19 | 20 | 15.50 | 34.04 | 6.17 | 25.14 | 283 | 0.089 |
| 30 | 14.45 | 34.40 | 4.61 | — | — | — | 8.30 | 30 | 14.30 | 34.41 | 4.56 | 25.69 | 231 | 0.114 |
| 50 | 11.07 | 34.33 | 4.90 | 0.48 | 0.12 | 21.08 | 8.21 | 50 | 10.85 | 34.33 | 4.95 | 26.30 | 173 | 0.155 |
| 75 | 5.86 | 34.13 | 5.92 | 0.41 | 0.08 | 18.18 | 8.05 | 75 | 5.69 | 34.12 | 5.93 | 26.92 | 114 | 0.191 |
| 112 | 2.81 | 33.97 | 5.73 | 0.38 | 0.06 | 42.17 | 8.01 | 100 | 2.65 | 33.97 | 5.70 | 27.11 | 96 | 0.218 |
| 底 | 1.96 | 34.01 | 5.31 | 0.93 | 0.21 | 33.44 | 7.99 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 21 | 1150 | 200 | 4 | 14 | N 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1008.6 | 26.6 | 23.7 | SC | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.80 | 32.58 | — | — | — | — | 7.93 | 0 | 26.80 | 32.58 | — | 20.99 | 680 | 0.000 |
| 10 | 21.51 | 33.40 | 6.66 | 0.21 | 0.09 | 26.89 | 8.14 | 10 | 21.51 | 33.40 | 6.66 | 23.16 | 472 | 0.058 |
| 20 | 15.08 | 33.65 | 6.04 | 0.14 | 0.02 | 13.09 | 8.20 | 20 | 15.08 | 33.65 | 6.04 | 24.93 | 303 | 0.096 |
| 30 | 14.56 | 34.17 | 5.31 | 0.20 | 0.14 | 13.81 | 8.21 | 30 | 14.56 | 34.17 | 5.31 | 25.45 | 254 | 0.124 |
| 50 | 14.66 | 34.44 | 4.53 | 0.32 | 0.08 | 24.72 | 8.10 | 50 | 14.66 | 34.44 | 4.53 | 25.63 | 237 | 0.174 |
| 75 | 11.49 | — | 4.58 | 0.49 | 0.06 | 19.63 | 7.94 | 75 | 11.49 | 34.34 | 4.58 | 26.20 | 183 | 0.227 |
| 96 | 6.48 | 34.13 | 6.25 | — | — | — | 7.89 | 100 | 5.80 | 34.11 | 6.33 | 26.89 | 117 | 0.264 |
| 144 | 3.41 | 34.00 | 6.25 | 0.38 | 0.04 | 22.54 | 7.85 | 125 | 3.07 | 34.00 | 6.21 | 27.10 | 97 | 0.291 |
| 147 | 2.33 | 33.99 | 6.06 | 0.52 | 0.26 | 32.72 | 7.72 | 150 | 1.93 | 33.99 | 5.98 | 27.19 | 89 | 0.315 |
| 底 | 0.59 | 34.00 | 5.53 | 0.56 | 0.08 | 10.91 | 7.78 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 21 | 08.35 | 1965 | | | NE 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1008.8 | 26.8 | 25.2 | St | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_3$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.50 | 32.71 | 4.80 | 0.22 | 0.03 | 29.08 | 8.00 | 0 | 27.50 | 32.71 | 4.80 | 20.85 | 693 | 0.000 |
| 10 | 27.49 | 33.65 | 5.83 | 0.07 | 0.03 | 13.41 | 8.17 | 10 | 27.49 | 33.65 | 5.85 | 21.57 | 624 | 0.066 |
| 20 | 21.04 | 33.66 | 5.00 | 0 | 0.00 | 10.18 | 8.25 | 20 | 21.04 | 33.66 | 5.00 | 23.68 | 423 | 0.118 |
| 30 | 18.62 | 33.91 | 5.92 | 0.01 | 0.00 | 25.45 | 8.23 | 30 | 18.62 | 33.91 | 5.92 | 24.31 | 363 | 0.158 |
| 50 | 15.80 | 34.30 | 4.86 | 0.21 | 0.03 | 22.54 | 8.14 | 50 | 15.80 | 34.30 | 4.86 | 25.28 | 270 | 0.221 |
| 75 | 14.82 | 34.44 | 4.67 | 0.35 | 0.08 | 36.35 | 8.32 | 75 | 14.82 | 34.44 | 4.67 | 25.60 | 240 | 0.285 |
| 97 | 14.47 | 34.46 | 4.57 | 0.28 | 0.10 | 27.63 | 8.21 | 100 | 14.47 | 34.46 | 4.57 | 25.69 | 231 | 0.345 |
| 121 | 12.05 | 34.38 | 4.94 | 0.15 | 0.00 | 9.27 | 8.50 | 125 | 11.33 | 34.35 | 5.02 | 26.23 | 180 | 0.397 |
| 145 | 7.62 | 34.19 | 5.42 | 0.22 | 0.02 | 32.72 | 8.16 | 150 | 6.84 | 34.16 | 5.54 | 26.80 | 126 | 0.436 |
| 185 | 2.80 | 33.98 | 6.23 | 0.57 | 0.00 | 13.81 | 8.09 | 200 | 2.07 | 33.96 | 6.37 | 27.16 | 92 | 0.491 |
| 246 | 1.37 | 33.98 | 6.44 | 0.84 | 0.60 | 69.07 | 8.00 | 250 | 1.32 | 33.98 | 6.42 | 27.23 | 85 | 0.536 |
| 302 | 0.92 | 34.00 | 6.12 | 0.73 | 0.22 | 37.08 | 7.85 | 300 | 0.92 | 34.00 | 6.12 | 27.27 | 81 | 0.577 |
| 400 | 0.60 | 34.01 | 5.71 | 0.87 | 0.17 | 31.99 | 8.28 | 400 | 0.60 | 34.01 | 5.71 | 27.29 | 79 | 0.658 |
| 508 | 0.35 | 34.01 | 5.01 | 0.70 | 0.30 | 57.43 | 7.93 | 500 | 0.34 | 34.01 | 5.61 | 27.31 | 77 | 0.735 |
| 629 | 0.22 | 34.02 | 5.49 | 0.90 | 0.28 | 43.62 | 7.86 | 600 | 0.22 | 34.02 | 5.49 | 27.33 | 76 | 0.811 |
| 697 | 0.24 | 34.03 | 5.40 | 1.04 | 0.23 | 51.62 | 7.83 | 700 | 0.23 | 34.03 | 5.40 | 27.33 | 75 | 0.886 |
| 823 | 0.12 | 34.02 | 5.29 | 0.77 | 0.17 | 58.16 | 7.85 | 800 | 0.11 | 34.02 | 5.29 | 27.33 | 75 | 0.961 |
| 913 | 0.17 | 34.02 | 5.40 | 1.16 | 0.16 | 67.61 | 7.87 | — | — | — | — | — | — | — |
| 1020 | 0.10 | 34.03 | 5.32 | 1.01 | 0.11 | 69.79 | 7.83 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 21 | 0430 | 2656 | | | NE2 | NE1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1008.5 | 25.6 | 24.3 | St | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.40 | 34.21 | 4.78 | 0.00 | 0.08 | 52.34 | 8.28 | 0 | 26.40 | 34.20 | 4.78 | 22.23 | 551 | 0.000 |
| 10 | 21.56 | 34.21 | 5.79 | 0.00 | 0.06 | 31.99 | 8.23 | 10 | 21.56 | 34.21 | 5.79 | 23.76 | 415 | 0.048 |
| 20 | 18.70 | 34.34 | 6.77 | 0.00 | 0.05 | 64.70 | 8.26 | 20 | 18.70 | 34.34 | 6.77 | 24.61 | 334 | 0.086 |
| 30 | 15.78 | 34.50 | 6.59 | 0.01 | 0.03 | 19.63 | 8.25 | 30 | 15.78 | 34.50 | 6.59 | 25.43 | 256 | 0.165 |
| 50 | 13.34 | 34.42 | 6.23 | 0.22 | 0.03 | 19.63 | 8.25 | 50 | 13.34 | 34.42 | 6.23 | 25.90 | 211 | 0.162 |
| 75 | 11.21 | 34.33 | 6.10 | 0.14 | 0.14 | 34.17 | 8.25 | 75 | 11.21 | 34.33 | 6.10 | 26.23 | 179 | 0.212 |
| 110 | 10.78 | 34.31 | 6.02 | 0.20 | 0.07 | 32.72 | 8.24 | 100 | 10.74 | 34.31 | 6.04 | 26.30 | 173 | 0.256 |
| 133 | 10.60 | 34.28 | 5.97 | 0.33 | 0.10 | 19.63 | 8.12 | 125 | 10.66 | 34.29 | 5.98 | 26.30 | 173 | 0.300 |
| 159 | 10.28 | 34.25 | 6.02 | 0.46 | 0.14 | 17.45 | 8.12 | 150 | 10.41 | 34.25 | 5.97 | 26.32 | 171 | 0.344 |
| 200 | 9.09 | 34.32 | 7.06 | 0.28 | 0.08 | 24.72 | 7.90 | 200 | 9.09 | 34.33 | 7.06 | 26.60 | 145 | 0.425 |
| 269 | 4.57 | 34.01 | 6.33 | 0.34 | 0.09 | 25.45 | 7.92 | 250 | 2.94 | 33.94 | 6.09 | 27.06 | 101 | 0.486 |
| 300 | 2.08 | 33.98 | 6.02 | 0.31 | 0.08 | 30.53 | 7.89 | 300 | 2.08 | 33.98 | 6.02 | 27.17 | 91 | 0.536 |
| 422 | 0.81 | 34.00 | 5.79 | 0.29 | 0.10 | 37.90 | 7.86 | 400 | 0.97 | 33.97 | 5.83 | 27.26 | 82 | 0.623 |
| 506 | 0.44 | 34.02 | 5.40 | 0.85 | 0.15 | 58.89 | 7.79 | 500 | 0.45 | 34.02 | 5.43 | 27.31 | 77 | 0.702 |
| 618 | 0.31 | 34.03 | 5.56 | 0.74 | 0.15 | 32.72 | 7.79 | 600 | 0.31 | 34.03 | 5.22 | 27.32 | 76 | 0.772 |
| 696 | 0.30 | 34.03 | -- | 1.08 | 0.16 | 34.08 | 7.72 | 700 | 0.29 | 34.03 | 5.12 | 27.33 | 74 | 0.854 |
| 817 | 0.16 | 34.02 | 5.15 | 0.97 | 0.96 | 46.53 | 7.70 | 800 | 0.20 | 34.02 | 5.14 | 27.33 | 76 | 0.929 |
| 904 | 0.10 | 34.02 | 5.11 | 0.78 | 0.33 | 75.61 | 7.80 | — | — | — | — | — | — | — |
| 999 | 0.13 | 34.03 | 5.29 | 0.35 | 0.26 | 73.43 | 7.81 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 20 | 2350 | 2160 | | | 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1010.0 | 26.0 | 23.2 | Sc | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$–P μg·at/L | $NO_2$–N μg·at/L | $SiO_2$–Si μg·at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D–T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.35 | 33.95 | 6.59 | 0.06 | 0.08 | 21.08 | 8.00 | 0 | 27.35 | 33.95 | 6.59 | 21.84 | 599 | 0.000 |
| 10 | 25.54 | 34.07 | 6.54 | 0.00 | 0.05 | 14.54 | 8.00 | 10 | 25.54 | 34.07 | 6.54 | 22.49 | 536 | 0.057 |
| 20 | 19.07 | 34.30 | 6.64 | 0.00 | 0.02 | 10.91 | 7.91 | 20 | 19.07 | 34.30 | 6.64 | 24.48 | 346 | 0.101 |
| 30 | 16.16 | 34.36 | 4.52 | 0.06 | 0.08 | 23.99 | 8.09 | 30 | 16.16 | 34.36 | 4.52 | 25.24 | 275 | 0.132 |
| 50 | 14.05 | 34.46 | 5.37 | 0.14 | 0.05 | 28.35 | 8.21 | 50 | 14.05 | 34.46 | 5.37 | 25.78 | 224 | 0.182 |
| 75 | 11.38 | 34.36 | 5.83 | 0.14 | 0.15 | 29.81 | 8.21 | 75 | 11.38 | 34.36 | 5.83 | 26.23 | 182 | 0.233 |
| 116 | 10.88 | 34.27 | 5.92 | 0.13 | 0.09 | 21.08 | 8.19 | 100 | 10.85 | 34.27 | 5.93 | 26.25 | 180 | 0.278 |
| 119 | 10.44 | 34.25 | 6.02 | 0.18 | 0.15 | 20.36 | 8.05 | 125 | 10.39 | 34.23 | 6.07 | 26.31 | 175 | 0.322 |
| 158 | 10.09 | — | 6.18 | 0.18 | 0.17 | 36.35 | 8.12 | 150 | 9.98 | 34.18 | 6.18 | 26.34 | 172 | 0.366 |
| 195 | 6.72 | 34.09 | 6.26 | 0.21 | 0.12 | 15.27 | 8.10 | 200 | 6.27 | 34.08 | 6.33 | 26.81 | 127 | 0.440 |
| 250 | 2.82 | 33.97 | 6.96 | 0.42 | 0.22 | 29.81 | 8.13 | 250 | 2.53 | 33.96 | 6.96 | 27.12 | 96 | 0.496 |
| 294 | 1.47 | 33.98 | 5.50 | 0.63 | 0.08 | 26.89 | 8.21 | 300 | 1.19 | 33.99 | 6.84 | 27.24 | 84 | 0.542 |
| 388 | 0.85 | 34.03 | 5.19 | 0.35 | 0.20 | 50.89 | 8.08 | 400 | 0.73 | 34.03 | 6.19 | 27.30 | 78 | 0.623 |
| 500 | 0.49 | 34.02 | 5.40 | 0.63 | 0.52 | 69.79 | 7.82 | 500 | 0.43 | 34.02 | 5.39 | 27.31 | 77 | 0.701 |
| 594 | 0.32 | 34.05 | 5.42 | 0.84 | 0.18 | 50.16 | 7.78 | 600 | 0.31 | 34.01 | 5.41 | 27.32 | 76 | 0.777 |
| 673 | 0.21 | 34.02 | 5.27 | 1.15 | 0.86 | 71.97 | 7.70 | 700 | 0.20 | 34.02 | 5.28 | 27.32 | 75 | 0.853 |
| 766 | 0.19 | — | 5.41 | 1.18 | 0.14 | 63.98 | 7.69 | 800 | 0.15 | 34.02 | — | 27.33 | 74 | 0.928 |
| 878 | 0.08 | 34.03 | 5.79 | 1.23 | 0.19 | 67.61 | 7.71 | — | — | — | — | — | — | — |
| 995 | 0.09 | 34.02 | 5.71 | 0.85 | 0.40 | 80.70 | 7.85 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 19 | 1550 | 2.000 | 3 | 16 | 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1012 | 27.9 | 24.4 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.40 | 33.07 | 5.22 | 0.07 | 0.02 | 29.08 | 8.02 | 0 | 26.40 | 33.07 | 5.22 | 21.48 | 633 | 0.000 |
| 10 | 20.62 | 33.28 | 5.90 | 0.15 | 0.02 | 37.80 | 8.02 | 10 | 20.62 | 33.28 | 5.90 | 23.31 | 458 | 0.055 |
| 20 | 18.11 | 33.70 | 6.02 | 0.11 | 0.02 | 41.44 | 8.11 | 20 | 18.11 | 33.70 | 6.02 | 24.27 | 366 | 0.096 |
| 30 | 15.91 | 34.16 | 6.25 | 0.22 | 0.14 | 54.53 | 8.12 | 30 | 15.91 | 34.16 | 6.25 | 25.14 | 283 | 0.128 |
| 50 | 14.03 | 34.44 | 4.75 | 0.48 | 0.13 | 36.35 | 8.15 | 50 | 14.03 | 34.44 | 4.75 | 25.77 | 223 | 0.179 |
| 75 | 8.94 | 34.10 | 6.33 | 0.35 | 0.22 | 25.45 | 8.07 | 75 | 8.94 | 34.10 | 6.33 | 26.87 | 119 | 0.222 |
| 100 | 8.04 | 33.99 | 7.04 | 0.34 | 0.05 | 46.53 | 7.98 | 100 | 8.04 | 33.99 | 7.04 | 27.00 | 106 | 0.251 |
| 151 | 2.42 | 33.96 | 6.71 | 0.55 | 0.14 | 55.98 | 7.85 | 125 | 2.42 | 33.96 | 6.71 | 27.13 | 95 | 0.276 |
| 167 | 1.86 | 33.96 | 6.64 | 0.62 | 0.08 | 47.26 | 7.92 | 150 | 1.86 | 33.96 | 6.64 | 27.17 | 90 | 0.299 |
| 215 | 1.02 | 33.99 | 6.18 | 0.63 | 0.42 | 40.71 | 7.82 | 200 | 1.02 | 33.99 | 6.18 | 27.25 | 83 | 0.343 |
| 281 | 0.64 | 33.98 | 6.23 | 0.56 | 0.51 | 48.71 | 7.86 | 250 | 0.64 | 33.99 | 6.23 | 27.28 | 80 | 0.383 |
| 301 | 0.53 | 34.01 | 5.71 | 0.80 | 0.08 | 52.34 | 7.79 | 300 | 0.53 | 34.01 | 5.71 | 27.30 | 78 | 0.423 |
| 394 | 0.38 | 34.01 | 5.45 | 0.97 | 0.40 | 74.15 | 7.73 | 400 | 0.37 | 34.01 | 5.43 | 27.31 | 77 | 0.501 |
| 509 | 0.27 | 34.02 | 5.17 | 0.77 | 0.16 | 61.07 | 7.78 | 500 | 0.25 | 34.02 | 5.16 | 27.33 | 76 | 0.577 |
| 608 | 0.18 | 34.02 | 5.21 | 0.70 | 0.26 | 74.63 | 7.75 | 600 | 0.18 | 34.02 | 5.23 | 27.33 | 76 | 0.652 |
| 628 | 0.19 | 34.02 | 5.26 | 0.83 | 0.20 | 64.70 | 7.59 | 700 | 0.13 | 34.02 | 5.33 | 27.33 | 75 | 0.727 |
| 820 | 0.17 | 34.02 | 5.39 | 1.19 | 0.06 | 59.61 | 7.64 | 800 | 0.07 | 34.02 | 5.40 | 27.33 | 75 | 0.802 |
| 884 | 0.11 | 34.02 | 5.43 | 0.91 | 0.30 | 100.33 | 7.65 | — | — | — | — | — | — | — |
| 997 | 0.05 | 34.03 | 5.82 | 1.34 | 0.12 | 74.43 | 7.79 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 15 | 19 | 1950 | 1300 | | | 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1012.2 | 26.8 | 22.5 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 27.40 | 34.44 | 4.93 | 0.14 | 0.04 | 20.36 | 7.87 | 0 | 27.40 | 33.44 | 4.93 | 21.43 | 637 | 0.000 |
| 10 | 27.48 | 34.40 | 4.88 | 0.11 | 0.04 | 33.44 | 8.12 | 10 | 26.99 | 33.46 | 5.06 | 21.58 | 623 | 0.063 |
| 20 | 21.40 | 34.09 | 5.89 | 0.08 | 0.04 | 21.81 | 8.25 | 20 | 20.79 | 34.11 | 5.96 | 23.90 | 402 | 0.114 |
| 30 | 16.66 | 34.26 | 6.35 | 0.06 | 0.03 | 19.63 | 8.30 | 30 | 16.28 | 34.29 | 6.37 | 25.16 | 282 | 0.149 |
| 50 | 15.31 | 34.43 | 6.12 | 0.15 | 0.14 | 15.27 | 8.33 | 50 | 14.83 | 34.43 | 6.04 | 25.59 | 241 | 0.201 |
| 75 | 10.91 | 34.33 | 5.62 | 0.28 | 0.12 | 21.81 | 8.17 | 75 | 10.23 | 34.30 | 5.64 | 26.39 | 165 | 0.252 |
| 80 | 7.13 | 34.17 | 5.84 | 0.32 | 0.12 | 26.17 | 8.09 | 100 | 6.06 | 34.17 | 5.88 | 26.91 | 115 | 0.288 |
| 136 | 3.52 | 34.17 | 5.97 | 0.38 | 0.10 | 26.17 | 8.05 | 125 | 2.97 | 34.12 | 6.03 | 27.21 | 87 | 0.313 |
| 167 | 2.39 | 34.01 | 6.12 | 0.56 | 0.10 | 33.53 | 7.78 | 150 | 2.07 | 33.99 | 6.03 | 27.18 | 90 | 0.335 |
| 206 | 1.27 | 34.00 | 5.61 | 0.85 | 0.08 | 30.53 | 7.72 | 200 | 1.17 | 34.00 | 5.64 | 27.25 | 83 | 0.379 |
| 216 | 1.11 | 34.00 | 5.72 | 0.92 | 0.23 | 39.26 | 7.75 | 250 | 0.95 | 34.01 | 5.78 | 27.27 | 81 | 0.420 |
| 296 | 0.75 | 34.00 | 5.71 | 0.98 | 0.12 | 54.53 | 7.84 | 300 | 0.73 | 34.00 | 5.68 | 27.28 | 80 | 0.460 |
| 362 | 0.49 | 34.01 | 5.29 | 1.33 | 0.03 | 50.16 | 7.60 | 400 | 0.44 | 34.01 | 5.26 | 27.31 | 77 | 0.539 |
| 430 | 0.42 | 34.02 | 5.29 | 1.21 | 0.23 | 58.89 | 7.52 | 500 | 0.26 | 34.02 | 5.24 | 27.32 | 76 | 0.616 |
| 531 | 0.21 | 34.06 | 5.40 | 0.77 | 0.13 | 46.53 | 7.62 | 600 | 0.21 | 34.03 | 5.17 | 27.33 | 75 | 0.691 |
| 616 | 0.22 | 34.03 | 5.52 | 0.71 | 0.00 | 67.61 | 7.61 | 700 | 0.16 | 34.03 | 5.12 | 27.33 | 75 | 0.765 |
| 611 | 0.08 | 34.02 | 5.40 | 1.25 | 0.08 | 79.24 | 7.70 | 800 | 0.09 | 34.03 | 5.15 | 27.34 | 74 | 0.839 |
| 712 | 0.15 | 34.03 | 5.11 | 0.98 | 0.13 | 63.98 | 7.65 | — | — | — | — | — | — | — |
| 939 | 0.01 | 34.04 | 5.29 | 1.18 | 0.17 | 83.88 | 7.55 | — | — | — | — | — | — | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 17 | 19 | 2340 | 292 | | | 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1012 | 27.9 | 23.9 | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.70 | 33.74 | 4.42 | 0.10 | 0.00 | 23.26 | 7.99 | 0 | 26.70 | 33.74 | 4.42 | 21.89 | 594 | 0.000 |
| 10 | 27.35 | 33.67 | 6.02 | 0.07 | 0.00 | 24.72 | 8.09 | 10 | 27.35 | 33.67 | 6.02 | 21.63 | 619 | 0.061 |
| 20 | 22.43 | 33.99 | 5.81 | 0.08 | 0.02 | 20.36 | 8.20 | 20 | 22.43 | 33.99 | 5.81 | 23.35 | 454 | 0.114 |
| 30 | 18.67 | 34.32 | 6.65 | 0.07 | 0.00 | 26.89 | 8.21 | 30 | 18.67 | 34.32 | 6.65 | 24.60 | 335 | 0.154 |
| 50 | 16.46 | 34.37 | 6.83 | 0.04 | 0.00 | 32.72 | 8.24 | 50 | 16.46 | 34.37 | 6.83 | 25.18 | 280 | 0.216 |
| 75 | 13.35 | 34.42 | 5.17 | 0.28 | 0.26 | 34.17 | 8.20 | 75 | 13.35 | 34.42 | 5.17 | 25.89 | 212 | 0.277 |
| 100 | 9.46 | 34.27 | 5.71 | 0.41 | 0.21 | 27.63 | 8.99 | 100 | 9.46 | 34.27 | 5.71 | 26.49 | 155 | 0.324 |
| 126 | 5.62 | 34.11 | 6.03 | 0.60 | 0.10 | 37.08 | 8.00 | 125 | 5.75 | 34.11 | 6.02 | 26.90 | 116 | 0.358 |
| 137 | 2.96 | 34.00 | 6.33 | 0.56 | 0.13 | 30.53 | 7.92 | 150 | 2.96 | 34.00 | 6.33 | 27.11 | 96 | 0.385 |
| 194 | 1.36 | 34.00 | 5.92 | 0.78 | 0.15 | 36.35 | 7.90 | 200 | 1.26 | 34.00 | 5.91 | 27.25 | 83 | 0.430 |
| 249 | 0.79 | 34.00 | 5.83 | 0.95 | 0.09 | 31.99 | 7.85 | 250 | 0.77 | 34.00 | 5.82 | 27.28 | 80 | 0.471 |
| 底 | 0.31 | 34.02 | 5.50 | 0.88 | 0.22 | 46.53 | 7.90 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 19 | 20 | 0340 | 551 | | | E 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1011.5 | 26.2 | 22.6 | SC | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.70 | 33.91 | 4.90 | 0.21 | 0.00 | 22.54 | 8.15 | 0 | 26.70 | 33.91 | 4.90 | 22.01 | 582 | 0.000 |
| 10 | 27.11 | 33.87 | 4.83 | 0.14 | 0.00 | 34.17 | 8.21 | 10 | 27.11 | 33.87 | 4.83 | 21.85 | 597 | 0.059 |
| 20 | 22.39 | 34.05 | 6.07 | 0.07 | 0.00 | 29.08 | 8.38 | 20 | 22.39 | 34.05 | 6.07 | 23.41 | 449 | 0.111 |
| 30 | 18.19 | 34.22 | 6.70 | 0.07 | 0.00 | 21.08 | 8.29 | 30 | 18.19 | 34.22 | 6.70 | 24.65 | 330 | 0.150 |
| 50 | 14.97 | 34.39 | 6.33 | 0.18 | 0.00 | 30.53 | 8.20 | 50 | 14.97 | 34.39 | 6.33 | 25.52 | 247 | 0.208 |
| 75 | 13.25 | 34.42 | 5.09 | 0.28 | 0.18 | 18.18 | 8.19 | 75 | 13.25 | 34.42 | 5.09 | 25.91 | 210 | 0.266 |
| 97 | 9.76 | 34.27 | 5.81 | 0.27 | 0.17 | 41.44 | 8.18 | 100 | 9.39 | 34.26 | 5.83 | 26.49 | 155 | 0.312 |
| 123 | 5.44 | 34.07 | 5.92 | 0.63 | 0.09 | 43.62 | 7.99 | 125 | 5.34 | 34.07 | 5.93 | 26.92 | 114 | 0.346 |
| 151 | 3.53 | 34.03 | 6.12 | 0.81 | 0.03 | 29.81 | 7.82 | 150 | 3.57 | 34.03 | 6.11 | 27.08 | 99 | 0.373 |
| 208 | 1.54 | 34.01 | 5.94 | 1.19 | 0.02 | 38.53 | 7.79 | 200 | 1.54 | 34.01 | 5.94 | 27.23 | 85 | 0.419 |
| 265 | 0.86 | 34.00 | 5.86 | 1.11 | 0.02 | 26.89 | 7.82 | 250 | 0.86 | 34.00 | 5.86 | 27.27 | 81 | 0.461 |
| 314 | 0.63 | 34.01 | 5.27 | 0.99 | 0.02 | 58.16 | 7.70 | 300 | 0.63 | 34.01 | 5.74 | 27.29 | 79 | 0.501 |
| 424 | 0.32 | — | 5.40 | 1.37 | 0.08 | 56.71 | 7.80 | 400 | 0.32 | — | 5.40 | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 21 | 20 | 0820 | 2250 | 3 | 16 | E 3 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1011.4 | 27.0 | 23.9 | Sc | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.90 | 33.32 | 4.88 | 0.13 | 0.00 | 31.26 | 7.87 | 0 | 27.90 | 33.32 | 4.88 | 21.18 | 661 | 0.000 |
| 10 | 27.03 | 33.25 | 5.17 | 0.15 | 0.00 | 17.45 | 8.15 | 10 | 27.03 | 33.25 | 5.17 | 21.41 | 639 | 0.065 |
| 20 | 23.42 | 33.98 | 5.56 | 0.17 | 0.00 | 32.72 | 8.20 | 20 | 23.42 | 33.98 | 5.56 | 23.06 | 482 | 0.121 |
| 30 | 20.72 | 34.21 | 7.18 | 0.21 | 0.00 | 25.45 | 8.21 | 30 | 20.72 | 34.21 | 7.18 | 23.99 | 393 | 0.165 |
| 50 | 18.39 | 34.39 | 5.32 | 0.15 | 0.18 | 32.72 | 8.23 | 50 | 18.39 | 34.39 | 5.33 | 24.73 | 322 | 0.237 |
| 75 | 15.81 | 34.42 | 4.92 | 0.35 | 0.04 | 29.06 | 8.13 | 75 | 15.81 | 34.42 | 4.92 | 25.37 | 262 | 0.310 |
| 97 | 14.01 | 34.60 | 4.93 | 0.21 | 0.16 | 35.62 | 8.00 | 100 | 13.91 | 34.60 | 4.99 | 25.91 | 210 | 0.370 |
| 129 | 11.32 | 34.36 | 5.29 | 0.15 | 0.24 | 41.44 | 7.96 | 125 | 11.19 | 34.35 | 5.31 | 26.25 | 178 | 0.419 |
| 145 | 8.20 | — | — | — | — | — | — | 150 | 8.18 | 34.19 | 5.77 | 26.63 | 142 | 0.460 |
| 171 | 3.92 | 34.03 | 6.23 | 0.36 | 0.18 | 45.07 | 7.92 | 200 | 3.42 | 34.03 | 6.20 | 27.09 | 98 | 0.521 |
| 248 | 2.02 | 34.34 | 5.40 | 0.32 | 0.28 | 47.26 | 8.00 | 250 | 1.98 | 34.00 | 5.40 | 27.19 | 89 | 0.568 |
| 300 | 1.37 | 34.02 | 5.71 | 0.90 | 0.14 | 43.62 | 7.91 | 300 | 1.33 | 34.02 | 5.72 | 27.26 | 82 | 0.611 |
| 411 | 0.51 | 34.02 | 5.71 | 1.11 | — | 42.89 | 7.93 | 400 | 0.49 | 34.02 | 5.69 | 27.31 | 77 | 0.691 |
| 516 | 0.31 | 33.99 | 5.29 | 1.12 | 0.14 | 42.89 | 7.81 | 500 | 0.30 | 34.03 | 5.28 | 27.32 | 76 | 0.767 |
| 618 | 0.20 | 33.99 | 5.41 | 1.25 | 0.91 | 41.17 | 7.79 | 600 | 0.19 | 34.03 | 5.20 | 27.33 | 75 | 0.842 |
| 671 | 0.35 | 34.03 | 5.24 | 0.93 | 0.26 | 57.43 | 7.81 | 700 | 0.17 | 34.03 | 5.24 | 27.34 | 75 | 0.916 |
| 820 | 0.16 | 34.03 | 5.23 | 1.60 | 0.14 | 74.88 | 7.79 | 800 | 0.15 | 34.03 | 5.23 | 27.34 | 75 | 0.990 |
| 911 | 0.06 | 34.03 | 5.32 | 1.19 | 0.21 | 55.25 | 7.73 | — | — | — | — | — | — | — |
| 1008 | 0.09 | 34.02 | 5.29 | 1.54 | 0.08 | 50.16 | 7.60 | — | — | — | — | — | — | — |

# 103선 해 양 관 측 성 적

## Oceanographic Data, Line 103

3월 (March) 조사선 (Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 14 | 1800 | 95 | 5 | 9 | ES. 2 | 1 |

| Wind | | Baro. | Air temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1017.4 | 10.3 | | NS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.78 | 34.60 | 6.29 | 0.11 | 0.10 | 11.63 | 7.80 | 0 | 12.78 | 34.60 | 6.29 | 26.15 | 188 | 0.000 |
| 9 | 11.24 | 34.53 | 6.22 | 0.14 | 0.09 | 12.36 | 7.65 | 10 | 11.00 | 34.52 | 6.22 | 26.41 | 163 | 0.018 |
| 19 | 10.19 | 34.50 | 6.17 | 0.24 | 0.15 | 13.09 | 7.70 | 20 | 10.16 | 34.50 | 6.16 | 26.55 | 149 | 0.033 |
| 29 | 9.80 | 34.48 | 6.09 | 0.21 | 0.14 | 13.81 | 8.00 | 30 | 9.59 | 34.46 | 6.09 | 26.62 | 142 | 0.048 |
| 48 | 5.30 | 34.20 | 6.04 | 0.25 | 0.09 | 14.54 | 7.76 | 50 | 4.95 | 34.18 | 6.04 | 27.06 | 101 | 0.072 |
| 73 | 2.51 | 34.13 | 6.01 | 0.42 | 0.10 | 16.72 | 7.92 | 75 | 2.41 | 34.12 | 5.99 | 27.26 | 82 | 0.095 |
| 底87 | 2.21 | 34.09 | 5.86 | 0.31 | 0.06 | 19.63 | 7.54 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 14 | 1900 | 188 | | | ESE 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ESE | 2 | 1017.4 | 11.8 | | NS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.57 | — | 6.17 | — | — | — | 7.73 | 0 | 12.57 | 34.56 | 6.17 | 26.16 | 187 | 0.000 |
| 9 | 12.61 | 34.56 | 6.11 | 0.07 | 0.02 | 19.03 | 7.90 | 10 | 12.66 | 34.56 | 6.12 | 26.14 | 189 | 0.019 |
| 18 | 12.43 | 34.54 | 6.17 | 0.20 | 0.01 | 18.18 | 7.90 | 20 | 12.26 | 34.52 | 6.11 | 26.19 | 184 | 0.037 |
| 27 | 11.49 | 34.45 | 5.86 | 0.10 | 0.02 | 20.36 | 8.19 | 30 | 11.11 | 34.43 | 5.82 | 26.33 | 170 | 0.055 |
| 46 | 8.83 | 34.37 | 5.76 | 0.26 | 0.13 | 21.08 | 7.79 | 50 | 8.18 | 34.34 | 5.75 | 26.75 | 130 | 0.085 |
| 69 | 5.11 | 34.20 | 5.78 | 0.55 | 0.06 | 26.17 | 7.64 | 75 | 4.14 | 34.15 | 5.89 | 27.12 | 95 | 0.114 |
| 91 | 2.13 | 34.06 | 6.12 | 0.57 | 0.04 | 26.89 | 7.90 | 100 | 1.79 | 34.05 | 6.13 | 27.25 | 83 | 0.136 |
| 114 | 1.71 | 34.07 | 6.08 | 0.52 | 0.02 | 26.17 | 7.84 | 125 | 1.75 | 34.07 | 6.04 | 27.27 | 81 | 0.157 |
| 137 | 1.38 | 34.07 | 5.94 | 0.45 | 0.10 | 26.17 | 7.67 | 150 | — | — | — | — | — | — |
| 底 | 1.09 | 34.07 | 5.90 | 0.05 | 0.01 | 29.01 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 14 | 2130 | 600 | | | ESE 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ESE | 3 | 1017.1 | 11.4 | | | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.25 | 34.59 | 5.98 | 0.27 | 0.03 | 27.54 | 8.12 | 0 | 13.25 | 34.59 | 5.98 | 26.04 | 197 | 0.000 |
| 9 | 13.29 | 34.64 | 5.97 | 0.21 | 0.02 | 23.99 | 7.98 | 10 | 13.15 | 34.63 | 5.97 | 26.10 | 192 | 0.020 |
| 19 | 11.90 | 34.56 | 5.97 | 0.21 | 0.06 | 21.81 | 8.14 | 20 | 11.85 | 34.55 | 5.97 | 26.29 | 174 | 0.038 |
| 29 | 11.74 | 34.55 | 5.92 | 0.18 | 0.02 | 23.26 | 8.00 | 30 | 11.73 | 34.54 | 5.92 | 26.31 | 172 | 0.055 |
| 49 | 11.66 | 34.54 | 5.94 | 0.11 | 0.02 | 27.63 | 8.13 | 50 | 11.65 | 34.53 | 5.94 | 26.32 | 172 | 0.090 |
| 74 | 11.38 | 34.51 | 5.98 | 0.14 | 0.02 | 27.63 | 8.00 | 75 | 11.36 | 34.50 | 5.98 | 26.34 | 169 | 0.133 |
| 99 | 10.87 | 34.45 | 5.97 | 0.06 | 0.03 | 26.89 | 8.21 | 100 | 10.85 | 34.44 | 5.97 | 26.39 | 164 | 0.175 |
| 123 | 9.70 | 34.36 | 5.94 | 0.07 | 0.03 | 26.89 | 7.94 | 125 | 9.42 | 34.34 | 5.93 | 26.56 | 149 | 0.215 |
| 148 | 5.35 | 34.18 | 5.84 | 0.13 | 0.02 | 23.35 | 7.88 | 150 | 5.60 | 34.16 | 5.84 | 26.97 | 115 | 0.247 |
| 199 | 1.56 | 34.00 | 5.81 | 0.09 | 0.02 | 29.08 | 7.95 | 200 | 1.52 | 34.00 | 5.81 | 27.23 | 85 | 0.297 |
| 241 | 0.99 | 34.07 | 5.87 | 0.10 | 0.02 | 25.45 | 7.68 | 250 | 0.93 | 34.07 | 5.86 | 27.32 | 76 | 0.337 |
| 281 | 0.82 | 34.06 | 5.82 | 0.18 | 0.03 | 29.89 | 7.82 | 300 | 0.75 | 34.06 | 5.79 | 27.33 | 75 | 0.375 |
| 384 | 0.54 | 34.10 | 5.65 | 0.35 | 0.05 | 30.53 | 7.85 | 400 | 0.50 | 34.10 | 5.62 | 27.37 | 71 | 0.448 |
| 494 | 0.36 | 34.09 | 5.40 | 0.31 | 0.02 | 33.44 | 7.70 | 500 | 0.35 | 34.09 | 5.39 | 27.37 | 71 | 0.519 |
| 底591 | 0.26 | 34.10 | 5.15 | 0.29 | 0.03 | 35.62 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 15 | 0200 | 84 | | | ESE 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ESE | 3 | 1014.6 | 10.4 | | Cu | 6 | CC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_4$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.30 | 34.30 | 6.80 | 0.29 | 0.18 | 15.99 | 7.66 | 0 | 10.30 | 34.30 | 6.80 | 26.37 | 166 | 0.000 |
| 10 | 10.30 | 34.29 | 6.11 | 0.22 | 0.16 | 18.90 | 7.82 | 10 | 10.30 | 34.29 | 6.11 | 26.37 | 167 | 0.017 |
| 19 | 10.30 | 34.30 | 6.25 | 0.22 | 0.08 | 24.72 | 8.10 | 20 | 10.30 | 34.29 | 6.26 | 26.37 | 166 | 0.033 |
| 29 | 10.30 | 34.29 | 6.33 | 0.20 | 0.09 | 24.72 | 8.10 | 30 | 10.29 | 34.29 | 6.33 | 26.37 | 167 | 0.050 |
| 49 | 10.28 | 34.35 | — | 0.11 | 0.08 | 24.45 | 7.92 | 50 | 10.28 | 34.34 | 6.33 | 26.41 | 162 | 0.083 |
| 74 | 10.35 | 34.30 | 6.30 | 0.24 | — | 34.45 | 8.02 | 75 | 10.33 | 34.30 | 6.30 | 26.37 | 167 | 0.125 |
| 底79 | 10.28 | 34.31 | 6.32 | 0.18 | 0.03 | 30.53 | 7.68 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 15 | 06.00 | 605 | 4 | 11 | ESE 1 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ESE | 3 | | 11.3 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.87 | 34.51 | 6.36 | 0.08 | 0.10 | 10.91 | 8.10 | 0 | 10.87 | 34.51 | 6.36 | 26.44 | 160 | 0.000 |
| 10 | 10.96 | 34.49 | 6.34 | 0.14 | 0.09 | 13.81 | 8.12 | 10 | 10.96 | 34.49 | 6.34 | 26.41 | 163 | 0.016 |
| 19 | 10.93 | 34.49 | 6.30 | 0.07 | 0.21 | 14.54 | 8.13 | 20 | 10.93 | 34.49 | 6.29 | 26.41 | 163 | 0.032 |
| 29 | 10.99 | 34.50 | 6.20 | 0.12 | 0.10 | 16.72 | 7.82 | 30 | 10.99 | 34.50 | 6.20 | 26.41 | 163 | 0.049 |
| 48 | 10.91 | 34.50 | 6.22 | 0.08 | 0.07 | 19.63 | 7.80 | 50 | 10.88 | 34.49 | 6.21 | 26.42 | 162 | 0.081 |
| 73 | 10.39 | 34.47 | 6.18 | 0.13 | 0.04 | 21.08 | 8.04 | 75 | 10.33 | 34.41 | 6.26 | 26.45 | 158 | 0.112 |
| 98 | 9.07 | 34.34 | 6.27 | 0.07 | 0.03 | 21.08 | 8.10 | 100 | 8.71 | 34.31 | 6.70 | 26.65 | 140 | 0.160 |
| 110 | 6.89 | 34.19 | 6.29 | 0.03 | 0.15 | 21.81 | 8.10 | 125 | 5.73 | 34.11 | 6.20 | 26.91 | 115 | 0.192 |
| 138 | 5.17 | 34.10 | 6.31 | 0.10 | 0.09 | 23.99 | 7.80 | 150 | 3.94 | 34.07 | 6.32 | 27.08 | 99 | 0.219 |
| 170 | 1.66 | 34.05 | 6.31 | 0.38 | 0.07 | 29.81 | 7.68 | 200 | 0.97 | 34.09 | 6.07 | 27.34 | 74 | 0.263 |
| 177 | 1.11 | 34.11 | 6.19 | 0.55 | 0.08 | 29.08 | 7.90 | 250 | 0.75 | 34.05 | 6.17 | 27.32 | 76 | 0.300 |
| 211 | 0.86 | 34.11 | 6.00 | 0.48 | 0.24 | 31.99 | 7.82 | 300 | 0.59 | 34.06 | 5.91 | 27.34 | 74 | 0.338 |
| 235 | 0.89 | 34.07 | 6.14 | 0.52 | 0.13 | 34.17 | 7.67 | 400 | — | — | — | — | — | — |
| 底315 | 0.64 | 34.09 | 5.73 | 0.69 | 0.04 | 36.35 | 7.66 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 15 | 0940 | | 4 | 14 | SSW 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 3 | 1014.1 | 12.3 | 12.1 | Ns | 10 | C. R |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.23 | 34.30 | 6.23 | 0.13 | 0.10 | 15.99 | 7.73 | 0 | 10.23 | 34.30 | 6.23 | 26.39 | 165 | 0.000 |
| 9 | 10.10 | 34.30 | 6.23 | 0.14 | 0.03 | 13.81 | 7.67 | 10 | 10.09 | 34.30 | 6.24 | 26.41 | 163 | 0.016 |
| 19 | 10.06 | 34.30 | 6.29 | 0.10 | 0.08 | 21.08 | 7.70 | 20 | 10.07 | 34.30 | 6.30 | 26.41 | 162 | 0.039 |
| 29 | 10.11 | 34.30 | 6.25 | 0.20 | 0.14 | 22.54 | 7.60 | 30 | 10.10 | 34.29 | 6.22 | 26.41 | 163 | 0.043 |
| 49 | 10.04 | 34.29 | 5.72 | 0.15 | 0.05 | 21.84 | 7.69 | 50 | 10.03 | 34.29 | 5.72 | 26.41 | 162 | 0.082 |
| 74 | 10.02 | 34.31 | 5.75 | 0.08 | 0.05 | 22.54 | 7.62 | 75 | 10.02 | 34.31 | 5.74 | 26.43 | 161 | 0.122 |
| 99 | 10.03 | 34.31 | 5.64 | 0.20 | 0.05 | 23.99 | 7.55 | 100 | 10.01 | 34.30 | 5.65 | 26.43 | 161 | 0.163 |
| 123 | 9.42 | 34.29 | 5.75 | 0.10 | 0.04 | 25.45 | 7.66 | 125 | 9.35 | 34.28 | 5.75 | 26.52 | 152 | 0.203 |
| 147 | 4.85 | 34.14 | 5.82 | 0.08 | 0.04 | 27.63 | 7.61 | 150 | 7.49 | 34.20 | 5.85 | 26.74 | 131 | 0.239 |
| 196 | 2.44 | 34.10 | 6.13 | 0.14 | 0.10 | 29.08 | 7.70 | 200 | 3.78 | 34.07 | 6.65 | 26.10 | 97 | 0.297 |
| 227 | 1.42 | 34.07 | 6.04 | 0.15 | 0.05 | 30.53 | 7.82 | 250 | 1.96 | 34.07 | 5.89 | 26.26 | 82 | 0.342 |
| 284 | 1.34 | 34.09 | 5.65 | 0.14 | 0.04 | 34.17 | — | 300 | 1.13 | 34.09 | 5.56 | 27.33 | 75 | 0.382 |
| 372 | 0.65 | 34.10 | 5.30 | 0.41 | 0.02 | 37.08 | 7.60 | 400 | 0.56 | 34.09 | 5.29 | 27.37 | 72 | 0.456 |
| 472 | 0.15 | 34.08 | 5.30 | 0.24 | 0.02 | 39.99 | 7.50 | 500 | 0.39 | 34.08 | 5.25 | 27.37 | 72 | 0.528 |
| 底553 | 0.31 | 34.11 | 5.11 | 0.42 | — | 45.80 | — | — | — | — | — | — | — | — |

8월(August) 백두산(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 18 | 1830 | 95 | 3 | 9 | SW 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1012.5 | 25.3 | 24.7 | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 24.09 | 33.50 | 5.71 | 0.07 | 0.06 | 10.91 | 8.33 | 0 | 24.09 | 33.50 | 5.71 | 22.50 | 535 | 0.000 |
| 10 | 16.29 | 33.00 | 6.54 | 0.10 | 0.10 | 13.81 | 8.25 | 10 | 16.29 | 34.06 | 6.54 | 24.98 | 299 | 0.042 |
| 20 | 14.11 | 34.35 | 4.57 | 0.50 | 0.14 | 18.90 | 8.20 | 20 | 14.11 | 34.35 | 4.57 | 25.68 | 232 | 0.068 |
| 30 | 12.52 | 34.38 | 4.78 | 0.43 | 0.30 | 32.72 | 8.20 | 30 | 12.52 | 34.38 | 4.78 | 25.02 | 199 | 0.090 |
| 50 | 8.19 | 34.21 | 5.61 | 0.41 | 0.14 | 42.17 | 8.29 | 50 | 8.19 | 34.21 | 5.61 | 25.65 | 140 | 0.124 |
| 75 | 5.10 | 34.08 | 6.12 | 0.38 | 0.08 | 27.63 | 8.04 | 75 | 5.10 | 34.08 | 6.12 | 26.96 | 111 | 0.156 |
| 底 | 3.94 | 34.02 | 5.81 | 0.42 | 0.21 | 21.81 | 7.86 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 18 | 19 55 | 185 | | | SW 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1013 | 24.4 | 23.8 | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 23.60 | 33.66 | 5.92 | 0.06 | 0.14 | 44.35 | 8.16 | 0 | 23.60 | 33.66 | 5.92 | 22.76 | 510 | 0.000 |
| 10 | 17.76 | 33.97 | 6.44 | 0.00 | 0.06 | 53.07 | 8.25 | 10 | 17.76 | 33.97 | 6.44 | 24.56 | 339 | 0.042 |
| 20 | 13.78 | 34.25 | 6.54 | 0.00 | 0.09 | 20.36 | 8.50 | 20 | 13.78 | 34.25 | 6.54 | 36.67 | 233 | 0.071 |
| 30 | 11.32 | 34.40 | 4.57 | 0.18 | 0.08 | 74.88 | 8.27 | 30 | 11.32 | 34.40 | 4.57 | 26.26 | 176 | 0.092 |
| 50 | 8.38 | 34.21 | 5.44 | 0.48 | 0.10 | 21.81 | 8.27 | 50 | 8.38 | 34.21 | 6.44 | 26.62 | 143 | 0.124 |
| 75 | 5.36 | 34.08 | 6.02 | 0.44 | 0.02 | 37.08 | 8.13 | 75 | 5.36 | 34.08 | 6.02 | 26.92 | 114 | 0.156 |
| 115 | 3.47 | 34.02 | 6.04 | 0.66 | 0.02 | 31.99 | 8.03 | 100 | 4.90 | 34.07 | 5.70 | 26.97 | 110 | 0.184 |
| 118 | 2.40 | 33.99 | 6.31 | 0.69 | 0.08 | 27.63 | 8.20 | 125 | 1.83 | 33.97 | 6.43 | 27.18 | 89 | 0.209 |
| 139 | 1.94 | 33.99 | 6.30 | 0.60 | 0.26 | 35.62 | 8.05 | 150 | 1.72 | 33.99 | 6.26 | 27.20 | 87 | 0.231 |
| 底 | 1.29 | 33.99 | 6.04 | 0.88 | 0.17 | 53.07 | 7.95 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 18 | 2250 | 730 | | | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1013.7 | 25.6 | 24.6 | As | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.10 | 32.49 | 5.11 | 0.09 | 0.04 | 16.72 | 8.12 | 0 | 26.10 | 32.49 | 5.11 | 21.13 | 666 | 0.000 |
| 10 | 19.34 | 33.30 | 6.12 | 0.00 | 0.04 | 13.09 | 8.16 | 10 | 19.34 | 33.30 | 6.12 | 23.66 | 425 | 0.055 |
| 20 | 15.25 | 33.48 | 6.42 | 0.00 | 0.02 | 17.45 | 8.43 | 20 | 15.11 | 33.53 | 6.39 | 24.84 | 312 | 0.091 |
| 30 | 14.89 | 33.95 | 5.92 | 0.13 | 0.04 | 32.72 | 8.34 | 30 | 14.88 | 33.94 | 5.83 | 25.20 | 278 | 0.121 |
| 50 | 14.66 | 34.45 | 4.57 | 0.11 | 0.00 | 28.35 | 8.24 | 50 | 14.66 | 33.51 | 4.59 | 24.94 | 303 | 0.179 |
| 75 | 12.84 | 34.39 | 5.40 | 0.41 | 0.14 | 16.72 | 7.95 | 75 | 12.84 | 34.42 | 5.43 | 26.11 | 191 | 0.241 |
| 96 | 8.32 | — | 4.57 | 0.48 | 0.04 | 25.45 | 7.98 | 100 | 7.39 | 34.40 | 5.71 | 26.92 | 115 | 0.280 |
| 120 | 4.34 | 34.04 | 5.98 | 0.57 | 0.05 | 21.21 | 8.20 | 125 | 2.86 | 33.99 | 6.23 | 27.11 | 96 | 0.307 |
| 123 | 2.31 | 34.09 | 5.98 | 0.42 | 0.06 | 26.89 | 8.01 | 150 | 1.64 | 33.99 | 5.88 | 27.21 | 86 | 0.330 |
| 133 | 2.23 | 34.00 | — | 0.35 | 0.15 | 13.81 | 8.10 | 200 | 1.05 | 33.99 | 5.57 | 27.26 | 83 | 0.372 |
| 144 | 2.06 | 33.99 | 6.47 | 0.42 | 0.03 | 29.08 | 8.05 | 250 | 0.77 | 34.01 | 5.35 | 27.28 | 80 | 0.413 |
| 163 | 1.51 | 33.99 | 5.81 | 0.74 | 0.04 | 35.62 | 7.51 | 300 | 0.58 | 34.01 | 5.22 | 27.30 | 79 | 0.452 |
| 243 | 0.81 | 34.00 | 6.35 | 0.52 | 0.08 | 52.34 | 8.11 | 400 | 0.43 | 34.01 | 5.16 | 27.31 | 77 | 0.530 |
| 337 | 0.52 | 34.01 | 5.19 | 0.69 | 0.11 | 57.43 | 7.91 | 500 | — | 34.02 | 5.32 | — | — | — |
| 428 | 0.42 | 34.01 | 6.04 | 0.71 | 0.11 | 39.99 | 7.95 | — | — | — | — | — | — | — |
| 526 | 0.52 | 34.03 | 5.40 | 0.66 | 0.08 | 50.16 | 7.96 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 19 | 0325 | 2200 | | | 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 2 | 1013 | 26.4 | | St | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 26.60 | 32.65 | 4.88 | 0.00 | 0.06 | 18.18 | 8.07 | 0 | 27.00 | 33.68 | 4.88 | 21.75 | 607 | 0.000 |
| 10 | 25.59 | 32.96 | 5.40 | 0.00 | 0.00 | 12.36 | 8.25 | 10 | 27.01 | 33.73 | 4.96 | 21.78 | 604 | 0.061 |
| 20 | 22.19 | 32.71 | 5.71 | 0.00 | 0.00 | 15.99 | 7.95 | 20 | 21.34 | 33.76 | 5.83 | 23.48 | 442 | 0.113 |
| 30 | 18.96 | 33.75 | 6.10 | 0.03 | 0.00 | 14.54 | 8.05 | 30 | 18.54 | 34.34 | 6.75 | 24.65 | 330 | 0.152 |
| 50 | 15.45 | 34.17 | 5.42 | 0.15 | 0.02 | 15.27 | 8.00 | 50 | 15.16 | 34.42 | 6.46 | 25.50 | 249 | 0.210 |
| 75 | 14.89 | 34.45 | 5.59 | 0.18 | 0.00 | 15.27 | 7.97 | 75 | 13.51 | 34.45 | 5.29 | 25.88 | 213 | 0.268 |
| 100 | 11.04 | 34.47 | 4.59 | 0.43 | 0.11 | 34.17 | 8.05 | 100 | 11.21 | 34.36 | 5.83 | 26.26 | 177 | 0.317 |
| 110 | 11.57 | — | 5.11 | 0.36 | 0.09 | 38.35 | 7.95 | 125 | 9.64 | 34.28 | 6.22 | 26.47 | 157 | 0.359 |
| 143 | 8.34 | 34.22 | 5.63 | 0.42 | 0.24 | 23.26 | 7.95 | 150 | 7.16 | 34.11 | 6.44 | 26.72 | 133 | 0.396 |
| 193 | 2.95 | 33.99 | 6.54 | 0.45 | 0.18 | 34.17 | 7.93 | 200 | 2.61 | 34.00 | 6.35 | 27.14 | 93 | 0.454 |
| 250 | — | 33.99 | 6.35 | 0.85 | 0.08 | 36.35 | 7.83 | 250 | 1.11 | 34.00 | 5.99 | 27.26 | 82 | 0.498 |
| 282 | 1.97 | 34.06 | 6.21 | 0.69 | 0.04 | 30.53 | 7.92 | 300 | 0.86 | 34.01 | 5.92 | 27.28 | 80 | 0.539 |
| 396 | 0.63 | 34.01 | 5.81 | 0.66 | 0.04 | 39.26 | 7.93 | 400 | 0.49 | 34.02 | 5.38 | 27.31 | 77 | 0.618 |
| 508 | 0.38 | 34.02 | 5.50 | 0.70 | 0.08 | 40.71 | 7.73 | 500 | 0.25 | 34.02 | 5.25 | 27.32 | 76 | 0.694 |
| 603 | 0.23 | 34.03 | 5.19 | 0.95 | 0.10 | 55.25 | — | 600 | 0.19 | 34.03 | 5.24 | 27.34 | 75 | 0.769 |
| 711 | 0.21 | 34.03 | 5.21 | 1.13 | 0.16 | 65.43 | 7.89 | 700 | 0.15 | 34.04 | 5.21 | 27.34 | 74 | 0.843 |
| 821 | 0.14 | 34.03 | 5.29 | 0.99 | 0.12 | 40.71 | 7.81 | 800 | 0.18 | 34.03 | 5.31 | 27.33 | 75 | 0.917 |
| 913 | 0.10 | 34.03 | 5.34 | 0.54 | 0.32 | 73.43 | 7.71 | — | — | — | — | — | — | — |
| 1000 | 0.10 | 34.03 | 5.45 | 0.77 | 0.47 | 65.43 | 7.79 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 19 | 0800 | 2080 | 2 | 20 | 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1013.8 | 28.1 | | Ci | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.00 | 33.68 | 4.88 | 0.08 | 0.05 | 42.17 | 8.96 | 0 | 26.60 | 32.65 | 4.88 | 21.10 | 670 | 0.000 |
| 10 | 27.01 | 33.73 | 4.96 | 0.00 | 0.04 | 53.07 | 8.21 | 10 | 25.59 | 32.96 | 5.40 | 21.64 | 617 | 0.064 |
| 20 | 21.34 | 33.76 | 5.83 | 0.00 | 0.04 | 46.53 | 8.25 | 20 | 22.19 | 32.71 | 5.71 | 22.45 | 540 | 0.122 |
| 30 | 18.54 | 34.34 | 6.73 | 0.01 | 0.04 | 29.81 | 8.26 | 30 | 18.96 | 33.75 | 6.10 | 24.10 | 382 | 0.168 |
| 50 | 15.16 | 34.42 | 6.75 | 0.10 | 0.04 | 45.07 | 8.21 | 50 | 15.45 | 34.17 | 5.42 | 25.25 | 273 | 0.234 |
| 75 | 13.51 | 34.45 | 6.46 | 0.22 | 0.08 | 41.44 | 8.15 | 75 | 14.89 | 34.45 | 5.59 | 25.59 | 241 | 0.299 |
| 99 | 11.23 | 34.36 | 5.29 | 0.14 | 0.10 | 47.26 | 8.19 | 100 | 13.01 | 34.44 | 5.24 | 25.98 | 204 | 0.355 |
| 124 | 10.25 | 34.29 | 5.81 | 0.35 | 0.25 | 47.26 | 8.18 | 125 | 10.01 | 34.34 | 5.28 | 26.45 | 159 | 0.401 |
| 149 | 9.75 | 34.12 | 5.51 | 0.27 | 0.16 | 55.25 | 8.18 | 150 | 7.39 | 34.18 | 5.79 | 26.74 | 131 | 0.438 |
| 198 | 2.72 | 34.00 | 6.44 | 0.35 | 0.38 | 51.62 | 7.93 | 200 | 2.75 | 33.98 | 6.54 | 27.12 | 96 | 0.495 |
| 238 | 1.29 | 34.00 | 6.37 | 0.67 | 0.33 | 50.16 | 7.83 | 250 | 1.78 | 34.01 | 6.29 | 27.22 | 86 | 0.541 |
| 303 | 0.87 | 34.01 | 6.02 | 0.87 | 0.24 | 65.43 | 7.82 | 300 | 1.11 | 34.07 | 6.12 | 27.31 | 77 | 0.582 |
| 325 | 0.55 | 34.02 | 5.92 | 0.98 | 0.28 | 61.80 | 7.78 | 400 | 0.61 | 34.02 | 5.80 | 27.30 | 78 | 0.660 |
| 481 | 0.29 | 34.02 | 5.42 | 0.76 | 0.32 | 83.61 | 7.74 | 500 | 0.37 | 34.03 | 5.50 | 27.32 | 77 | 0.738 |
| 577 | 0.22 | 34.03 | — | 0.69 | 0.14 | 94.51 | 7.70 | 600 | 0.23 | 34.03 | 5.19 | 27.33 | 75 | 0.813 |
| 673 | 0.15 | 34.04 | 5.27 | 1.26 | 0.06 | 87.24 | 7.71 | 700 | 0.20 | 34.03 | 5.21 | 27.33 | 75 | 0.888 |
| 769 | 0.18 | 34.03 | 5.19 | 1.19 | 0.16 | 70.52 | 7.72 | 800 | 0.13 | 34.03 | 5.29 | 27.34 | 75 | 0.962 |
| 861 | 0.05 | 34.03 | 5.29 | 1.05 | 0.10 | 87.24 | 7.59 | 1000 | 0.10 | 34.03 | 5.45 | 27.34 | 75 | 1.110 |
| 961 | 0.11 | 34.03 | 5.32 | 0.85 | 0.27 | 69.07 | 7.69 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 19 | 1200 | 1800 | 2 | 26 | 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1013 | 29.5 | 25.1 | Ci | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.50 | 34.08 | 4.84 | 0.13 | 0.06 | 47.26 | 7.92 | 0 | 27.50 | 34.08 | 4.84 | 21.89 | 594 | 0.000 |
| 9 | 27.34 | 33.88 | 4.98 | 0.00 | 0.02 | 45.07 | 7.93 | 10 | 26.84 | 33.89 | 5.06 | 21.96 | 587 | 0.059 |
| 18 | 21.97 | 34.09 | 5.79 | 0.00 | 0.04 | 45.80 | 7.94 | 20 | 20.87 | 34.05 | 5.91 | 23.90 | 402 | 0.109 |
| 27 | 17.75 | 34.33 | 6.15 | 0.00 | 0.04 | 47.26 | 7.92 | 30 | 17.31 | 34.37 | 6.02 | 24.98 | 299 | 0.144 |
| 45 | 16.57 | 34.45 | 5.17 | 0.11 | 0.08 | 61.80 | 7.95 | 50 | 15.52 | 34.45 | 5.18 | 25.45 | 254 | 0.199 |
| 66 | 11.78 | 34.35 | 5.53 | 0.08 | 0.06 | 45.80 | 7.94 | 75 | 10.33 | 34.28 | 5.75 | 26.35 | 169 | 0.252 |
| 88 | 8.53 | 34.16 | 6.02 | 0.20 | 0.16 | 63.25 | 8.00 | 100 | 6.69 | 34.10 | 6.04 | 26.77 | 128 | 0.290 |
| 110 | 5.31 | 34.06 | 6.02 | 0.35 | 0.18 | 87.24 | 7.95 | 125 | 3.81 | 34.02 | 6.14 | 27.05 | 102 | 0.319 |
| 132 | 3.28 | 34.01 | 6.20 | 0.55 | 0.12 | 41.44 | 7.94 | 150 | 2.31 | 33.99 | 6.21 | 27.16 | 92 | 0.343 |
| 174 | 1.57 | 33.98 | 6.12 | 0.46 | 0.23 | 60.34 | 8.25 | 200 | 1.17 | 33.98 | 5.99 | 27.24 | 84 | 0.388 |
| 215 | 1.05 | 33.99 | 5.90 | 0.66 | 0.32 | 66.16 | 8.07 | 250 | 0.77 | 33.99 | 5.75 | 27.27 | 81 | 0.429 |
| 280 | 0.76 | 34.00 | 5.81 | 0.64 | 0.14 | 65.43 | 8.09 | 300 | 0.57 | 34.01 | 5.57 | 27.29 | 79 | 0.469 |
| 293 | 0.59 | 34.00 | 5.92 | 0.95 | 0.14 | 62.52 | 7.93 | 400 | 0.39 | 34.02 | 5.31 | 27.32 | 77 | 0.547 |
| 364 | 0.48 | 34.02 | 5.40 | 0.74 | 0.16 | 64.70 | 7.81 | 500 | 0.21 | 34.02 | 5.24 | 27.33 | 76 | 0.623 |
| 460 | 0.27 | 34.02 | 5.21 | 0.83 | 0.20 | 79.52 | 7.83 | 600 | 0.18 | 34.02 | 5.25 | 27.33 | 75 | 0.698 |
| 565 | 0.17 | 34.03 | 5.29 | 0.53 | 0.15 | 55.98 | 7.85 | 700 | 0.15 | 34.03 | 5.18 | 27.33 | 75 | 0.772 |
| 628 | 0.19 | 34.02 | 5.21 | 1.22 | 0.08 | 83.61 | 7.77 | 800 | 0.09 | 34.03 | 5.24 | 27.34 | 75 | 0.846 |
| 738 | 0.12 | 34.02 | 5.63 | 0.92 | 0.08 | 85.79 | 7.69 | — | — | — | — | — | — | — |
| 835 | 0.08 | 43.03 | 5.29 | 1.06 | 0.10 | 99.59 | 7.65 | — | — | — | — | — | — | — |

# 102선 해 양 관 측 성 적

## Oceanographic Data, Line 102

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 12 | 21.55 | 52 | | | WNN 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 2 | 1016.2 | 11.4 | | | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.69 | 34.52 | 5.98 | 0.13 | 0.19 | 21.08 | 8.00 | 0 | 11.69 | 34.52 | 5.98 | 26.29 | 174 | 0.000 |
| 10 | 10.67 | 34.51 | 5.97 | 0.25 | 0.09 | 21.81 | 7.80 | 10 | 10.67 | 34.51 | 5.97 | 26.47 | 157 | 0.017 |
| 20 | 10.34 | 34.51 | 6.21 | 0.24 | 0.14 | 22.54 | 7.82 | 20 | 10.34 | 34.51 | 6.21 | 26.53 | 151 | 0.032 |
| 30 | 10.04 | 34.49 | 6.33 | 0.15 | 0.08 | 23.26 | 8.10 | 30 | 10.04 | 34.49 | 6.33 | 26.57 | 148 | 0.047 |
| 底47 | 9.05 | 34.34 | 6.09 | 0.27 | 0.06 | 32.72 | 8.07 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 12 | 21.15 | 122 | | | SNN 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 2 | 1015.8 | 12.5 | | | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.67 | 34.62 | 6.25 | 0.10 | 0.06 | 9.45 | 7.82 | 0 | 12.67 | 34.62 | 6.25 | 26.18 | 184 | 0.000 |
| 9 | 12.63 | 34.57 | 6.07 | 0.17 | 0.04 | 10.18 | 7.80 | 10 | 12.64 | 34.57 | 6.06 | 26.15 | 187 | 0.019 |
| 19 | 12.69 | 34.58 | 6.03 | 0.15 | 0.05 | 10.91 | 8.05 | 20 | 12.67 | 34.58 | 6.03 | 26.15 | 187 | 0.037 |
| 29 | 12.37 | 34.57 | 6.00 | 0.15 | 0.06 | 16.72 | 8.14 | 30 | 12.36 | 34.56 | 5.99 | 26.20 | 182 | 0.056 |
| 49 | 11.28 | 34.48 | 5.86 | 0.18 | 0.06 | 18.90 | 7.89 | 50 | 11.05 | 34.47 | 5.85 | 26.37 | 166 | 0.091 |
| 74 | 5.22 | 34.23 | 5.68 | 0.31 | 0.06 | 19.63 | 8.00 | 75 | 5.05 | 34.22 | 5.68 | 27.08 | 100 | 0.124 |
| 99 | 2.47 | 34.12 | 5.63 | 0.21 | 0.05 | 12.63 | 7.60 | 100 | 2.40 | 34.11 | 5.63 | 27.25 | 83 | 0.147 |
| 底 | 2.03 | — | — | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 12 | 1800 | | 4 | 14 | SW 2 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1015.3 | 12.1 | | Al-St | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | ∧D dyn. m |
| 0 | 12.66 | 34.59 | 5.83 | 0.10 | 0.26 | 16.72 | 8.02 | 0 | 12.66 | 34.59 | 5.83 | 26.16 | 186 | 0.000 |
| 6 | 12.55 | 34.59 | 5.86 | 0.17 | 0.35 | 18.18 | 8.10 | 10 | 11.86 | 34.54 | 5.96 | 26.28 | 175 | 0.018 |
| 12 | 11.52 | 34.54 | 6.01 | 0.11 | 0.39 | 18.90 | 8.12 | 20 | 11.43 | 34.53 | 6.05 | 26.35 | 168 | 0.035 |
| 19 | 11.44 | 34.53 | 6.05 | 0.14 | 0.18 | 19.63 | 8.10 | 30 | 11.43 | 34.52 | 6.09 | 26.34 | 169 | 0.052 |
| 32 | 11.44 | 34.52 | 6.09 | 0.10 | 0.10 | 19.63 | 8.14 | 50 | 11.33 | 34.51 | 6.04 | 26.35 | 168 | 0.086 |
| 48 | 11.33 | 34.51 | 6.07 | 0.15 | 0.21 | 20.36 | 8.05 | 75 | 10.64 | 34.42 | 5.92 | 26.41 | 163 | 0.128 |
| 64 | 11.18 | 34.49 | 5.87 | 0.18 | 0.10 | 20.36 | 8.10 | 100 | 9.91 | 34.41 | 5.86 | 26.53 | 151 | 0.168 |
| 80 | 11.22 | 34.38 | 5.94 | 0.14 | 0.05 | 20.36 | — | 125 | 9.70 | 34.58 | 5.97 | 26.19 | 185 | 0.210 |
| 96 | 10.80 | 34.25 | 5.78 | 0.34 | 0.10 | 21.08 | 8.20 | 150 | 9.69 | 34.43 | 5.90 | 26.58 | 146 | 0.252 |
| 102 | 10.80 | 34.50 | 5.90 | 0.17 | 0.09 | 21.81 | 8.12 | 200 | 6.10 | 34.34 | 5.82 | 27.05 | 102 | 0.316 |
| 133 | 7.52 | 34.47 | 5.93 | — | 0.13 | 22.54 | 7.92 | 250 | 2.39 | 34.26 | 5.75 | 27.37 | 71 | 0.360 |
| 266 | 3.62 | — | 5.73 | 0.18 | 0.13 | 24.72 | 7.90 | 300 | 0.72 | 34.17 | 5.83 | 27.42 | 66 | 0.395 |
| 270 | 1.18 | 34.09 | 5.89 | 0.49 | 0.06 | 26.17 | 7.97 | 400 | 0.42 | 34.09 | 5.56 | 27.37 | 71 | 0.464 |
| 330 | 0.67 | 34.13 | 5.58 | 0.35 | 0.05 | 35.62 | 7.93 | — | — | — | — | — | — | — |
| 底418 | 0.41 | 34.09 | 5.39 | 0.32 | — | — | 7.70 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 12 | 13. 25 | | 3 | 18 | SW 1 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ESE | 4 | 1017. 4 | 11. 8 | | Al-St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10. 52 | 34. 41 | 6. 34 | 0. 13 | — | 13. 81 | 8. 00 | 0 | 10. 52 | 34. 41 | 6. 34 | 26. 42 | 162 | 0. 000 |
| 10 | 10. 47 | 34. 40 | 6. 38 | 0. 08 | 0. 07 | 14. 54 | 8. 10 | 10 | 10. 48 | 34. 40 | 6. 38 | 26. 42 | 162 | 0. 016 |
| 20 | 10. 64 | 34. 43 | 6. 35 | 0. 06 | 0. 03 | 15. 27 | 8. 15 | 20 | 10. 65 | 34. 43 | 6. 32 | 26. 42 | 162 | 0. 032 |
| 30 | 10. 64 | 34. 44 | 6. 20 | 0. 10 | 0. 05 | 15. 99 | 8. 15 | 30 | 10. 61 | 34. 43 | 6. 20 | 26. 42 | 161 | 0. 049 |
| 50 | 10. 46 | 34. 40 | 6. 33 | 0. 14 | 0. 07 | 18. 90 | 8. 15 | 50 | 10. 44 | 34. 40 | 6. 33 | 26. 43 | 161 | 0. 081 |
| 70 | 10. 30 | 34. 40 | 6. 31 | 0. 11 | 0. 05 | 19. 63 | 8. 22 | 75 | 10. 30 | 34. 38 | 6. 30 | 26. 44 | 160 | 0. 121 |
| 90 | 9. 28 | 34. 31 | 6. 22 | 0. 15 | 0. 01 | 20. 35 | 8. 05 | 100 | 9. 74 | 34. 32 | 6. 25 | 26. 49 | 155 | 0. 161 |
| 120 | 8. 94 | 34. 27 | 6. 20 | 0. 11 | 0. 02 | 20. 17 | 8. 05 | 125 | 7. 84 | 34. 24 | 6. 16 | 26. 72 | 133 | 0. 198 |
| 140 | 6. 20 | 34. 20 | 6. 10 | 0. 22 | 0. 04 | 28. 35 | 8. 10 | 150 | 5. 14 | 34. 17 | 6. 08 | 27. 02 | 104 | 0. 228 |
| 221 | 1. 22 | 34. 07 | 5. 95 | 0. 14 | 0. 03 | 29. 08 | 7. 88 | 200 | 1. 86 | 34. 08 | 6. 01 | 27. 27 | 81 | 0. 275 |
| 230 | 1. 22 | 34. 07 | 6. 00 | 0. 10 | 0. 03 | 28. 35 | 7. 80 | 250 | 0. 96 | 34. 07 | 5. 94 | 27. 32 | 76 | 0. 314 |
| 239 | 1. 00 | 34. 07 | 5. 96 | 0. 35 | 0. 11 | 31. 26 | 7. 88 | 300 | 0. 75 | 34. 08 | 5. 93 | 27. 35 | 74 | 0. 352 |
| 280 | 0. 80 | 34. 08 | 5. 94 | 0. 84 | 0. 07 | 33. 44 | 7. 90 | — | — | — | — | — | — | — |
| 底335 | 0. 67 | 34. 10 | 5. 89 | 0. 81 | 0. 10 | 35. 62 | 7. 90 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 12 | 1945 | 1020 | 3 | 16 | SW 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 3 | 1019.1 | 11.1 | | Ci | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ c.c./L | $PO_4$-P μg at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ c.c./L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.46 | 34.46 | 6.31 | 0.28 | 0.09 | 13.81 | 8.48 | 0 | 10.46 | 34.46 | 6.31 | 26.47 | 157 | 0.000 |
| 9 | 10.46 | 34.46 | 6.28 | 0.18 | 0.03 | 13.09 | — | 10 | 10.44 | 34.46 | 6.28 | 26.47 | 157 | 0.016 |
| 19 | 10.31 | 34.46 | 6.25 | 0.25 | 0.04 | 14.54 | 8.40 | 20 | 10.30 | 34.45 | 6.25 | 26.50 | 154 | 0.031 |
| 28 | 10.32 | 34.45 | 6.27 | 0.18 | 0.15 | 14.54 | 8.28 | 30 | 10.35 | 34.45 | 6.27 | 26.48 | 156 | 0.047 |
| 48 | 10.27 | 34.45 | 6.29 | 0.15 | 0.07 | 15.27 | 8.20 | 50 | 10.11 | 34.43 | 6.30 | 26.51 | 153 | 0.078 |
| 72 | 7.66 | 34.23 | 6.24 | 0.17 | 0.05 | 15.27 | 8.20 | 75 | 7.24 | 34.21 | 6.40 | 26.78 | 127 | 0.113 |
| 98 | 4.20 | 34.11 | 6.22 | 0.14 | 0.10 | 20.36 | 8.10 | 100 | 3.97 | 34.10 | 6.22 | 27.10 | 97 | 0.141 |
| 122 | 2.05 | 34.08 | 6.19 | 0.07 | 0.10 | 21.81 | 8.00 | 125 | 1.92 | 34.07 | 6.16 | 27.26 | 82 | 0.164 |
| 147 | 1.42 | 34.07 | 5.96 | — | — | — | 7.90 | 150 | 1.38 | 34.07 | 5.95 | 27.29 | 79 | 0.184 |
| 194 | 1.15 | 34.09 | 5.98 | 0.13 | 0.02 | 26.17 | 7.90 | 200 | 1.10 | 34.09 | 5.97 | 27.33 | 75 | 0.223 |
| 244 | 0.78 | 34.11 | 5.89 | 0.11 | 0.06 | 29.08 | — | 250 | 0.75 | 34.10 | 5.87 | 27.37 | 72 | 0.260 |
| 292 | 0.62 | 34.09 | 5.75 | 0.14 | 0.06 | 30.53 | 7.85 | 300 | 0.59 | 34.09 | 5.75 | 27.36 | 73 | 0.296 |
| 392 | 0.40 | 34.10 | 5.71 | 0.27 | 0.08 | 34.17 | 7.80 | 400 | 0.38 | 34.10 | 5.68 | 27.38 | 71 | 0.367 |
| 489 | 0.30 | 34.10 | 5.34 | 0.21 | 0.07 | 36.35 | 7.75 | 500 | 0.29 | 34.10 | 5.31 | 27.39 | 70 | 0.438 |
| 595 | 0.82 | 34.10 | 5.18 | 0.48 | 0.05 | 37.80 | 7.75 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 12 | 0540 | | | | 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 2 | 1018.5 | 10.6 | | As | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O^2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.94 | 34.60 | 5.98 | 0.08 | — | 6.54 | 7.80 | 0 | 11.94 | 34.60 | 5.98 | 26.31 | 176 | 0.000 |
| 9 | 11.94 | 34.61 | 5.99 | 0.01 | 0.10 | 8.72 | 7.90 | 10 | 11.93 | 34.07 | 5.99 | 25.90 | 211 | 0.019 |
| 17 | 11.91 | 34.60 | 6.01 | 0.10 | 0.07 | 8.72 | 8.10 | 20 | 11.91 | 34.64 | 6.00 | 26.35 | 169 | 0.038 |
| 27 | 11.87 | 34.59 | 5.98 | 0.01 | 0.07 | 10.18 | 8.12 | 30 | 11.76 | 34.57 | 5.98 | 26.33 | 171 | 0.055 |
| 45 | 11.13 | 34.51 | 6.00 | 0.01 | 0.05 | 10.91 | 8.10 | 50 | 10.99 | 34.49 | 6.03 | 26.40 | 163 | 0.089 |
| 67 | 10.67 | 34.46 | 6.09 | 0.11 | 0.06 | 11.63 | 8.13 | 75 | 10.64 | 34.45 | 6.06 | 26.44 | 160 | 0.130 |
| 89 | 10.41 | 34.44 | 5.99 | 0.07 | 0.06 | 17.45 | 8.27 | 100 | 9.78 | 34.37 | 5.98 | 26.52 | 153 | 0.169 |
| 112 | 8.71 | 34.28 | 5.97 | 0.08 | 0.06 | 18.18 | 8.26 | 125 | 6.88 | 34.19 | 5.94 | 26.82 | 124 | 0.204 |
| 135 | 5.41 | 34.14 | 5.91 | 0.18 | 0.09 | 22.54 | 8.10 | 150 | 3.85 | 34.10 | 5.84 | 27.11 | 96 | 0.232 |
| 182 | 1.73 | 34.08 | 5.79 | 0.88 | 0.10 | 25.45 | 8.03 | 200 | 1.21 | 34.07 | 5.73 | 27.31 | 77 | 0.276 |
| 229 | 0.91 | 34.08 | 5.78 | 0.85 | 0.10 | 30.53 | 7.68 | 250 | 0.77 | 34.08 | 5.73 | 27.34 | 74 | 0.314 |
| 276 | 0.71 | 34.09 | 5.63 | 0.09 | 0.17 | 30.53 | 7.70 | 300 | 0.63 | 34.09 | 5.52 | 27.36 | 73 | 0.350 |
| 388 | 0.45 | 34.10 | 5.20 | 1.25 | 0.06 | 31.99 | 7.72 | 400 | 0.43 | 34.10 | 5.20 | 27.38 | 71 | 0.422 |
| 454 | 0.40 | 34.11 | 5.15 | 1.29 | 0.08 | 32.72 | 7.70 | 500 | 0.34 | 34.11 | 4.82 | 27.39 | 69 | 0.492 |
| 底565 | 0.26 | 34.11 | 4.10 | 1.08 | 0.10 | 32.17 | 7.58 | — | — | — | — | — | - | — |

8월 (August)　　조사선 (Beak Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 17 | 0455 | 50 | | | 2 | 11 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1010 | 23.0 | 23.4 | St | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 23.84 | 33.38 | 5.40 | 0.00 | 0.04 | 12.36 | 8.15 | 0 | 23.84 | 33.38 | 5.40 | 22.49 | 536 | 0.000 |
| 10 | 17.61 | 33.94 | 6.06 | 0.03 | 0.05 | 39.99 | 8.35 | 10 | 17.61 | 33.93 | 6.06 | 24.57 | 338 | 0.044 |
| 20 | 15.82 | 34.13 | 5.69 | 0.09 | 0.04 | 15.27 | 8.20 | 20 | 15.82 | 34.13 | 5.69 | 25.14 | 284 | 0.075 |
| 30 | 13.77 | 34.30 | 5.25 | 0.27 | 0.06 | 24.72 | 8.25 | 30 | 13.77 | 34.30 | 5.25 | 25.71 | 229 | 0.101 |
| 底 | 8.15 | 34.22 | 5.29 | 0.21 | 0.05 | 26.89 | 8.40 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 17 | 03. 25 | 272 | | | 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1009 | 21. 2 | 21. 0 | St | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$ -P μg-at/L | $NO_2$ -N μg-at/L | $SiO_2$- Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 19. 73 | 33. 80 | 6. 80 | 0. 11 | 0. 09 | 13. 81 | 8. 08 | 0 | 19. 73 | 33. 80 | 6. 80 | 23. 94 | 398 | 0. 000 |
| 10 | 15. 48 | 34. 12 | 5. 12 | 0. 39 | 0. 24 | 18. 18 | 8. 23 | 10 | 15. 48 | 34. 12 | 5. 12 | 25. 21 | 277 | 0. 034 |
| 20 | 11. 86 | 34. 35 | 4. 62 | 0. 45 | 0. 20 | 25. 45 | 8. 25 | 20 | 11. 86 | 34. 35 | 4. 62 | 26. 13 | 189 | 0. 057 |
| 30 | 11. 07 | 34. 35 | 4. 75 | 0. 48 | 0. 23 | 15. 99 | 8. 19 | 30 | 11. 07 | 34. 35 | 4. 75 | 26. 28 | 175 | 0. 075 |
| 50 | 9. 07 | 34. 27 | 5. 14 | 0. 38 | 0. 36 | 37. 8 | 08. 18 | 50 | 9. 07 | 34. 27 | 5. 14 | 26. 55 | 149 | 0. 108 |
| 75 | 4. 13 | 34. 06 | 6. 06 | 0. 49 | 0. 16 | 34. 17 | 8. 10 | 75 | 4. 13 | 34. 06 | 6. 06 | 27. 04 | 102 | 0. 140 |
| 100 | 2. 21 | 33. 99 | 6. 33 | 0. 60 | 0. 14 | 25. 35 | 8. 18 | 100 | 2. 21 | 33. 99 | 6. 33 | 27. 17 | 91 | 0. 164 |
| 125 | 1. 66 | 33. 99 | 6. 10 | 0. 74 | 0. 46 | 19. 63 | 8. 94 | 125 | 1. 66 | 33. 99 | 6. 10 | 27. 21 | 87 | 0. 186 |
| 150 | 1. 20 | 33. 99 | 6. 02 | 0. 70 | 0. 12 | 26. 89 | 7. 88 | 150 | 1. 20 | 33. 99 | 6. 02 | 27. 24 | 84 | 0. 208 |
| 200 | 0. 84 | 34. 00 | 5. 94 | 0. 92 | 0. 22 | 77. 06 | 7. 90 | 200 | 0. 84 | 34. 00 | 5. 94 | 27. 27 | 81 | 0. 249 |
| 250 | 0. 66 | 34. 00 | 6. 10 | 0. 77 | 0. 11 | 36. 35 | 7. 84 | 250 | 0. 67 | 34. 00 | — | 27. 29 | 80 | 0. 289 |
| 底 | 0. 46 | 34. 01 | 5. 71 | 0. 98 | 0. 15 | 39. 99 | 8. 00 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 17 | 0009 | 1350 | | | 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 3 | 1009.6 | 24.4 | 23.7 | St | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg·at/L | $NO_2$-N μg·at/L | $SiO_2$-Si μg·at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 26.43 | 32.46 | 5.53 | 0.00 | 0.04 | 58.16 | 8.20 | 0 | 26.48 | 32.46 | 5.53 | 20.99 | 680 | 0.000 |
| 10 | 24.80 | 33.33 | 5.14 | 0.00 | 0.04 | 31.99 | 8.04 | 10 | 24.80 | 33.32 | 5.14 | 22.16 | 568 | 0.062 |
| 20 | 21.91 | 33.67 | 5.73 | 0.04 | 0.04 | 21.08 | 8.20 | 20 | 21.91 | 33.67 | 5.73 | 23.25 | 463 | 0.114 |
| 30 | 20.45 | 33.82 | 6.13 | 0.00 | 0.06 | 22.54 | 8.40 | 30 | 20.45 | 33.81 | 6.13 | 23.76 | 415 | 0.158 |
| 50 | 16.74 | 34.20 | 6.99 | 0.25 | 0.12 | 25.45 | 8.38 | 50 | 16.60 | 34.22 | 6.93 | 25.03 | 294 | 0.229 |
| 75 | 14.69 | 34.60 | 4.93 | 0.21 | 0.19 | 43.62 | 8.34 | 75 | 14.66 | 34.36 | 4.90 | 25.57 | 242 | 0.297 |
| 97 | 14.52 | — | 4.62 | 0.22 | 0.20 | 34.17 | 8.20 | 100 | 14.56 | 34.44 | 4.62 | 25.66 | 234 | 0.357 |
| 104 | 14.64 | 34.44 | 4.62 | 0.24 | 0.08 | 26.17 | 8.02 | 125 | 14.41 | 34.44 | 4.63 | 25.68 | 232 | 0.416 |
| 119 | 10.75 | 34.33 | 4.83 | 0.50 | 0.20 | 45.80 | 8.08 | 150 | 10.33 | 34.31 | 4.90 | 26.37 | 166 | 0.466 |
| 153 | 8.20 | 33.97 | 6.37 | 0.62 | 0.10 | 22.54 | 8.01 | 200 | 2.02 | 33.97 | 6.38 | 27.17 | 91 | 0.532 |
| 218 | 1.27 | 34.00 | 6.10 | 0.77 | 0.44 | 21.08 | 7.96 | 250 | 1.22 | 34.00 | 6.07 | 27.25 | 83 | 0.575 |
| 259 | 0.85 | 34.00 | 5.75 | 1.06 | 0.27 | 27.63 | 7.91 | 300 | 0.82 | 34.00 | 5.73 | 27.28 | 81 | 0.617 |
| 364 | 0.47 | 33.97 | 5.55 | 1.11 | 0.33 | 47.26 | 7.95 | 400 | 0.45 | 34.00 | 5.52 | 27.30 | 79 | 0.696 |
| 407 | 0.35 | 34.00 | 5.12 | 1.23 | 0.10 | 43.62 | 7.93 | 500 | 0.34 | 33.98 | 5.11 | 27.28 | 80 | 0.775 |
| 487 | 0.28 | 34.03 | 5.45 | 1.25 | 0.16 | 42.17 | 7.80 | 600 | 0.27 | 34.01 | 5.03 | 27.31 | 77 | 0.853 |
| 571 | 0.18 | 34.03 | 5.45 | 1.39 | 0.17 | 53.07 | 7.88 | 700 | 0.17 | 34.03 | 5.08 | 27.33 | 75 | 0.929 |
| 678 | 0.12 | 34.03 | 5.24 | 1.25 | 0.22 | 60.34 | 7.76 | 800 | 0.10 | 34.03 | 5.25 | 27.34 | 75 | 1.003 |
| 763 | 0.02 | 34.03 | 5.32 | 1.18 | 0.18 | 63.25 | 7.60 | — | — | — | — | — | — | — |
| 830 | 0.05 | 34.03 | 5.14 | 0.94 | 0.56 | 45.80 | 7.76 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 16 | 1920 | 1470 | | | 3 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1009 | 26.3 | 25.7 | St | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 28.04 | 32.85 | 4.78 | 0.03 | 0.05 | 21.08 | 8.25 | 0 | 28.04 | 32.85 | 4.78 | 20.79 | 699 | 0.000 |
| 10 | 27.68 | 32.85 | 4.93 | 0.01 | 0.06 | 15.27 | 8.27 | 10 | 27.68 | 32.85 | 4.93 | 20.91 | 688 | 0.069 |
| 20 | 25.02 | 33.42 | 5.16 | 0.06 | 0.06 | 57.43 | 8.68 | 20 | 25.02 | 33.42 | 5.16 | 22.16 | 567 | 0.132 |
| 30 | 21.91 | 33.81 | 6.16 | 0.03 | 0.06 | 52.34 | 8.40 | 30 | 21.91 | 33.81 | 6.16 | 23.36 | 453 | 0.183 |
| 50 | 17.50 | 34.24 | 5.34 | 0.07 | 0.34 | 22.54 | 8.27 | 50 | 17.50 | 34.24 | 5.34 | 24.83 | 312 | 0.260 |
| 75 | 15.92 | 34.37 | 4.75 | 0.35 | 0.16 | 14.54 | 8.20 | 75 | 15.92 | 34.37 | 4.75 | 25.30 | 268 | 0.333 |
| 93 | 15.00 | 34.44 | 5.55 | 0.41 | 0.17 | 24.72 | 8.12 | 100 | 15.00 | 34.44 | 4.43 | 25.56 | 244 | 0.396 |
| 106 | 14.83 | 34.47 | 4.53 | 0.49 | 0.18 | 34.17 | 8.19 | 125 | 14.79 | 34.47 | 4.60 | 25.63 | 237 | 0.459 |
| 112 | 13.01 | 34.42 | 5.14 | 0.52 | 0.17 | 26.17 | 8.10 | 150 | 12.81 | 34.41 | 5.16 | 25.99 | 202 | 0.514 |
| 194 | 3.31 | 34.04 | 4.90 | 0.50 | 0.14 | 39.99 | 8.05 | 200 | 3.23 | 34.03 | 5.91 | 27.12 | 96 | 0.590 |
| 233 | 1.89 | 34.00 | 6.02 | 0.94 | 0.15 | 32.72 | 7.94 | 250 | 1.86 | 34.00 | 6.02 | 27.20 | 88 | 0.637 |
| 269 | 1.06 | 33.99 | 5.94 | 1.01 | 0.12 | 37.80 | 7.93 | 300 | 1.03 | 33.99 | 5.94 | 27.25 | 83 | 0.680 |
| 309 | 0.85 | 33.99 | 5.68 | 0.94 | 0.21 | 54.53 | 7.89 | 400 | 0.44 | 33.99 | 5.67 | 27.29 | 79 | 0.761 |
| 522 | 0.40 | 33.99 | 5.45 | 0.97 | 0.22 | 55.25 | 7.58 | 500 | 0.37 | 34.00 | 5.41 | 27.30 | 78 | 0.839 |
| 598 | 0.24 | 34.02 | 5.22 | 0.85 | 0.18 | 45.80 | 7.66 | 600 | 0.22 | 34.02 | 5.20 | 27.32 | 76 | 0.916 |
| 697 | 0.06 | 34.02 | 5.32 | 0.70 | 0.22 | 63.25 | 7.74 | 700 | 0.14 | 34.02 | 5.16 | 27.33 | 75 | 0.991 |
| 783 | 0.13 | 34.03 | 5.26 | 1.16 | 0.20 | 76.34 | 7.70 | 800 | 0.12 | 34.03 | — | 27.34 | 75 | 1.065 |
| 904 | 0.12 | 34.04 | 4.95 | 0.79 | 0.24 | 78.52 | 7.83 | — | — | — | — | — | — | — |
| 990 | 0.07 | 34.02 | 5.24 | 1.11 | 0.15 | 70.52 | 7.65 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 16 | 1500 | 1560 | 3 | 15 | 4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 4 | 1009 | 30.4 | 29.1 | St | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.95 | 33.64 | 4.93 | 0.00 | 0.08 | 45.07 | 8.30 | 0 | 26.95 | 33.64 | 4.93 | 21.74 | 608 | 0.000 |
| 10 | 26.53 | 33.75 | 4.85 | 0.00 | 0.06 | 27.63 | 8.43 | 10 | 26.10 | 33.74 | 4.94 | 22.07 | 576 | 0.059 |
| 20 | 21.40 | 33.64 | 5.88 | 0.13 | 0.06 | 26.17 | 8.36 | 20 | 20.92 | 33.67 | 5.96 | 23.52 | 437 | 0.110 |
| 30 | 17.24 | 34.04 | 6.47 | 0.14 | 0.22 | 24.72 | 8.30 | 30 | 16.97 | 34.06 | 6.48 | 24.82 | 314 | 0.148 |
| 50 | 14.24 | — | 6.16 | 0.11 | 0.06 | 21.81 | 8.30 | 50 | 13.97 | 34.39 | 6.07 | 25.75 | 226 | 0.202 |
| 75 | 12.61 | 34.40 | 5.55 | 0.21 | 0.12 | 25.45 | 8.08 | 75 | 12.38 | 34.41 | 5.56 | 26.07 | 195 | 0.255 |
| 119 | 10.80 | 34.32 | 5.75 | 0.14 | 0.14 | 16.72 | 8.11 | 100 | 10.24 | 34.21 | 5.76 | 26.31 | 172 | 0.301 |
| 127 | 8.82 | 33.98 | 5.77 | 0.38 | 0.17 | 46.53 | 8.05 | 125 | 7.84 | 33.98 | 5.83 | 26.52 | 152 | 0.342 |
| 149 | 6.30 | — | 5.96 | 0.28 | 0.25 | 107.3 | 8.07 | 150 | 5.40 | 33.98 | 6.06 | 26.85 | 121 | 0.377 |
| 186 | 2.38 | — | 6.37 | 0.25 | 0.32 | 37.08 | 8.02 | 200 | 1.97 | 33.99 | 6.31 | 27.19 | 89 | 0.430 |
| 244 | 1.36 | 33.99 | 5.93 | 0.29 | 0.53 | 78.52 | 8.00 | 250 | 1.27 | 33.99 | 5.90 | 27.24 | 84 | 0.473 |
| 284 | 0.88 | 33.98 | 5.79 | 0.46 | 0.14 | 86.51 | 7.92 | 300 | 0.76 | 33.98 | 5.74 | 27.26 | 82 | 0.515 |
| 378 | 0.46 | 34.00 | 5.53 | 1.08 | 0.36 | 55.98 | 7.80 | 400 | 0.42 | 34.01 | 5.47 | 27.30 | 78 | 0.595 |
| 503 | 0.34 | 34.01 | 5.14 | 0.98 | 0.24 | 77.79 | 7.65 | 500 | 0.30 | 34.01 | 5.27 | 27.32 | 77 | 0.672 |
| 578 | 0.20 | 34.02 | 5.59 | 1.22 | 0.37 | 83.61 | 7.85 | 600 | 0.19 | 34.02 | 5.15 | 27.33 | 76 | 0.748 |
| 641 | 0.10 | 34.01 | 5.12 | 1.37 | 0.27 | 87.97 | 7.84 | 700 | 0.18 | 34.03 | 5.12 | 27.33 | 75 | 0.822 |
| 809 | 0.02 | 34.04 | 5.57 | 1.23 | 0.18 | 69.07 | 7.63 | 800 | 0.19 | 34.04 | 5.19 | 27.34 | 75 | 0.896 |
| 758 | 0.17 | — | 5.26 | 1.11 | 0.58 | 71.97 | 7.75 | — | — | — | — | — | — | — |
| 934 | 0.06 | 34.02 | 5.45 | 0.56 | 0.17 | 110.5 | 7.87 | — | — | — | — | — | — | — |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 16 | 10.55 | 1100 | 3 | 20 | 4 | 4 |

| Wind | | Buro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 4 | 1010 | 28.1 | 27.4 | St | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$ -P μg-at/L | $NO_2$ -N μg-at/L | $SiO_2$ -Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | Δ D dyn. m |
| 0 | 26.99 | 33.79 | 4.81 | 0.00 | 0.01 | 14.54 | 8.10 | 0 | 26.99 | 33.79 | 4.81 | 21.83 | 599 | 0.000 |
| 10 | 26.71 | 33.87 | 4.83 | 0.00 | 0.06 | 10.81 | 8.25 | 10 | 26.71 | 33.87 | 4.83 | 21.98 | 535 | 0.059 |
| 20 | 26.64 | 33.94 | 6.55 | 0.00 | 0.06 | 14.36 | 8.32 | 20 | 26.64 | 33.94 | 6.55 | 22.06 | 577 | 0.117 |
| 30 | 20.48 | 34.27 | 6.58 | 0.00 | 0.10 | 53.80 | 8.32 | 30 | 20.48 | 34.27 | 6.58 | 24.10 | 383 | 0.165 |
| 50 | 18.73 | 34.22 | 5.88 | 0.00 | 0.16 | 46.53 | 8.27 | 50 | 18.73 | 34.40 | 5.14 | 25.15 | 283 | 0.232 |
| 75 | 16.67 | 34.40 | 5.14 | 0.01 | 0.11 | 46.53 | 8.23 | 75 | 16.79 | 34.39 | 5.65 | 25.77 | 223 | 0.296 |
| 100 | 13.79 | 34.39 | 5.65 | 0.01 | 0.14 | 15.27 | 8.20 | 100 | 13.79 | 34.22 | 5.86 | 26.60 | 145 | 0.342 |
| 125 | 7.01 | 34.11 | 6.39 | 0.50 | 0.20 | 22.54 | 8.29 | 125 | 7.01 | 34.09 | 5.45 | 27.03 | 104 | 0.374 |
| 150 | 3.92 | — | 6.47 | 0.35 | 0.08 | 20.36 | 8.03 | 150 | 3.92 | 33.99 | 5.58 | 27.22 | 86 | 0.398 |
| 197 | 3.24 | 34.01 | 6.88 | 1.04 | 0.35 | 136.85 | 8.00 | 200 | — | 33.91 | 6.00 | — | — | — |
| 242 | 2.35 | 33.98 | 5.65 | 0.83 | 0.20 | 162.85 | 8.00 | 250 | — | 33.98 | 6.49 | — | — | — |
| 300 | 1.42 | 33.98 | 6.49 | 0.53 | 0.15 | 16.72 | 7.90 | 300 | — | 34.04 | 6.47 | — | — | — |
| 400 | 0.95 | 33.91 | 5.99 | 0.74 | 0.09 | 26.17 | 7.80 | 400 | — | 34.11 | 6.30 | — | — | — |
| 500 | 0.89 | 34.00 | 5.96 | 0.87 | 0.32 | 194.84 | 8.00 | 500 | — | 34.01 | 5.97 | — | — | — |
| 600 | 0.74 | 33.99 | 5.57 | 0.63 | 0.14 | 34.17 | 7.84 | 600 | — | 33.98 | 5.64 | — | — | — |
| 700 | 0.48 | 34.01 | 5.45 | 0.56 | 0.37 | 42.89 | 7.75 | 700 | — | 34.00 | 5.49 | — | — | — |
| 800 | 0.45 | 34.01 | 5.45 | 1.30 | 0.50 | 221.07 | 7.90 | — | — | — | — | — | — | — |
| 900 | 0.11 | 34.01 | 5.53 | 1.02 | 0.51 | 70.52 | 7.80 | — | — | — | — | — | — | — |
| 1000 | 0.08 | 34.02 | 6.58 | 0.66 | 0.13 | 77.06 | 7.83 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 15 | 16 | 07.00 | 450 | 2 | 27 | SE 4 | SE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 4 | 1009.7 | 27.8 | | St | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | O $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$ Si μg at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ⊿D dyn. m |
| 0 | 27.48 | 33.34 | 4.82 | 0.00 | 0.02 | 112.69 | 8.33 | | | | | | | |
| 10 | 27.45 | 33.30 | 5.34 | 0.00 | 0.00 | 127.95 | 8.30 | | | | | | | |
| 20 | 21.35 | 34.07 | 5.50 | 0.00 | 0.00 | 159.94 | 8.22 | | | | | | | |
| 30 | 19.23 | 34.37 | — | 0.08 | 0.11 | 54.53 | 8.23 | | | | | | | |
| 50 | 17.23 | 34.38 | 4.81 | 0.27 | 0.26 | 181.02 | 8.14 | | | | | | | |
| 75 | 16.49 | 34.43 | 4.14 | 0.21 | 0.06 | 57.43 | 7.95 | | | | | | | |
| 87 | 14.80 | 34.45 | 4.78 | 0.38 | 0.21 | 176.66 | 7.90 | | | | | | | |
| 110 | 10.24 | 34.28 | 5.65 | 0.14 | 0.30 | 133.77 | 7.95 | | | | | | | |
| 137 | 6.46 | 34.03 | 6.27 | 0.28 | 0.08 | 22.54 | — | | | | | | | |
| 154 | 3.38 | 34.00 | 6.45 | 0.28 | 0.14 | 20.36 | 7.90 | | | | | | | |
| 216 | 1.58 | 34.00 | 5.80 | 0.38 | 0.14 | 25.45 | 7.90 | | | | | | | |
| 259 | 0.94 | 34.01 | 5.55 | 1.05 | 0.18 | 29.08 | 8.00 | | | | | | | |
| 365 | 0.49 | 34.01 | 5.65 | 0.95 | 0.11 | 39.26 | 8.00 | | | | | | | |
| 底415 | 0.36 | 34.01 | 5.35 | 0.73 | 0.14 | 38.53 | 7.90 | | | | | | | |

# 남 해 해 양 조 사 성 적

# OCEANOGRAPHIC OBSERVATIONS SOUTHERN WATERS

1 9 6 7

# 209선 해 양 관 측 성 적

## Oceanographic Data, Line 209

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 11 | 1130 | 50 | 2 | 16 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1029.8 | 11.8 | 10.8 | Cu | 2 | B |

| | OBSERVED | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.52 | 34.57 | 6.09 | 0.11 | 0.06 | 13.09 | 7.94 | 0 | 12.52 | 34.57 | 6.09 | 26.52 | 185 | 0.000 |
| 10 | 12.39 | 34.55 | 6.00 | 0.11 | 0.03 | 13.81 | 8.00 | 10 | 12.39 | 34.55 | 6.00 | 26.18 | 184 | 0.018 |
| 20 | 12.36 | 34.56 | 5.98 | 0.17 | 0.04 | 14.54 | 8.05 | 20 | 12.36 | 34.56 | 5.98 | 26.20 | 183 | 0.037 |
| 30 | 12.29 | 34.55 | 5.97 | 0.14 | 0.03 | 16.72 | 8.07 | 30 | 12.29 | 34.55 | 5.97 | 26.20 | 182 | 0.055 |
| 底47 | 11.21 | 34.48 | 5.93 | 0.15 | 0.05 | 17.45 | 8.02 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 11 | 12.35 | 140 | 3 | 14 | NNW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 1 | 1029.3 | 10.3 | 9.8 | Cu | 4 | BC |

| | OBSERVED | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.71 | 34.57 | 5.94 | 0.15 | 0.13 | 7.27 | 8.03 | 0 | 12.71 | 34.57 | 5.94 | 26.14 | 189 | 0.000 |
| 10 | 12.61 | 34.57 | 5.90 | 0.17 | 0.10 | 8.00 | 8.08 | 10 | 12.61 | 34.57 | 5.90 | 26.16 | 187 | 0.019 |
| 20 | 12.49 | 34.55 | 5.89 | 0.14 | 0.27 | 8.72 | 8.16 | 20 | 12.49 | 34.55 | 5.89 | 26.16 | 186 | 0.037 |
| 30 | 12.29 | 34.53 | 5.88 | 0.11 | 0.14 | 10.18 | 8.13 | 30 | 12.29 | 34.53 | 5.88 | 26.19 | 184 | 0.056 |
| 50 | 12.01 | 34.51 | -- | 0.14 | 0.24 | 15.99 | 8.12 | 50 | 12.01 | 34.51 | 5.71 | 26.23 | 180 | 0.093 |
| 75 | 11.75 | 34.57 | 5.86 | 0.14 | 0.11 | 17.45 | 8.20 | 75 | 11.52 | 34.57 | 5.86 | 26.36 | 167 | 0.136 |
| 97 | 6.62 | 34.34 | 5.62 | 0.13 | 0.06 | 26.17 | 8.08 | 100 | 6.05 | 34.31 | 5.60 | 27.03 | 104 | 0.171 |
| 100 | 1.37 | 34.09 | 5.53 | 0.15 | 0.01 | 27.45 | 7.97 | 125 | 2.25 | 34.13 | 5.53 | 27.28 | 80 | 0.194 |
| 底135 | 1.30 | 34.09 | 5.56 | 0.21 | 0.14 | 26.17 | 7.82 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 11 | 1540 | 250 | 3 | 18 | NE 1 | N 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1022.1 | 10.2 | 9.8 | Cu | 7 | BC |

| OBSERVED | | | | | | | | INTERPOALTED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.06 | 34.63 | 5.87 | 0.14 | 0.04 | 7.27 | 7.93 | 0 | 13.06 | 34.63 | 5.87 | 26.11 | 191 | 0.000 |
| 10 | 13.19 | 34.66 | 5.89 | 0.07 | 0.05 | 10.18 | 8.21 | 10 | 13.19 | 34.66 | 5.89 | 26.11 | 191 | 0.019 |
| 20 | 13.15 | 34.64 | 5.86 | 0.14 | 0.35 | 11.63 | 8.10 | 20 | 13.15 | 34.64 | 5.86 | 26.10 | 192 | 0.038 |
| 28 | 13.15 | 34.63 | 5.84 | 0.15 | — | 13.09 | 8.00 | 30 | 13.15 | 34.63 | 5.84 | 29.09 | 193 | 0.053 |
| 46 | 13.19 | 34.64 | 5.88 | 0.17 | 0.02 | 13.81 | 8.00 | 50 | 13.18 | 34.63 | 5.88 | 26.09 | 193 | 0.096 |
| 71 | 13.13 | 34.63 | 5.87 | 0.14 | 0.04 | 14.54 | 8.10 | 75 | 13.13 | 34.63 | 5.86 | 26.10 | 192 | 0.145 |
| 94 | 13.11 | 34.64 | 5.81 | 0.10 | 0.02 | 15.99 | 7.92 | 100 | 13.09 | 34.64 | 5.79 | 26.11 | 191 | 0.193 |
| 111 | 12.98 | 34.63 | 5.76 | 0.11 | 0.05 | 18.90 | 7.95 | 125 | 12.49 | 34.58 | 5.76 | 26.19 | 184 | 0.241 |
| 125 | 12.49 | 34.58 | 5.76 | 0.22 | 0.06 | 21.81 | — | 150 | 9.03 | 34.37 | 5.72 | 26.65 | 140 | 0.282 |
| 176 | 5.13 | 34.17 | 5.63 | 0.24 | 0.11 | 24.72 | 7.98 | 200 | 3.85 | 34.10 | 5.53 | 27.11 | 96 | 0.342 |
| 底217 | 3.79 | 34.10 | 5.45 | 0.32 | 0.08 | 27.63 | 7.85 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 11 | 1950 | 150 | | | NNE 1 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | 1021 | 9.4 | 8.9 | St | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.73 | 34.60 | 5.96 | 0.10 | 0.07 | 7.27 | 7.90 | 0 | 12.73 | 34.60 | 5.96 | 26.16 | 147 | 0.000 |
| 9 | 12.68 | 34.60 | 5.96 | 0.11 | 0.04 | 8.00 | 8.00 | 10 | 12.67 | 34.60 | 5.96 | 26.17 | 186 | 0.019 |
| 19 | 12.66 | 34.61 | 5.92 | 0.10 | 0.04 | 9.45 | 8.10 | 20 | 12.65 | 34.61 | 5.92 | 26.18 | 185 | 0.037 |
| 29 | 12.56 | 34.61 | 5.93 | 0.07 | 0.06 | 11.63 | 8.15 | 30 | 12.55 | 34.61 | 5.93 | 26.20 | 183 | 0.056 |
| 49 | 12.33 | 34.60 | 5.94 | 0.17 | 0.24 | 13.09 | 8.10 | 50 | 12.30 | 34.60 | 5.95 | 26.24 | 179 | 0.092 |
| 75 | 11.44 | 34.56 | 6.07 | 0.14 | 0.06 | 14.54 | 8.10 | 75 | 11.44 | 34.56 | 6.07 | 26.37 | 166 | 0.135 |
| 99 | 10.74 | 34.42 | 6.05 | 0.10 | 0.06 | 17.45 | 8.10 | 100 | 10.72 | 34.41 | 6.05 | 26.39 | 163 | 0.177 |
| 128 | 8.81 | 34.38 | 6.00 | 0.21 | 0.07 | 18.90 | 8.02 | 125 | 9.15 | 34.38 | 6.01 | 26.63 | 142 | 0.216 |
| | — | — | — | — | — | — | — | 150 | 4.09 | 34.24 | 5.88 | 27.20 | 88 | 0.245 |
| 底147 | 5.13 | 34.22 | 5.86 | 0.29 | 0.05 | 24.72 | 7.80 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 11 | 2240 | 138 | | | E 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1020 | 9.7 | 9.3 | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ⊿D dyn. m |
| 0 | 13.48 | — | 5.73 | 0.01 | 0.09 | 7.27 | 7.84 | 0 | 13.48 | 34.68 | 5.73 | 26.07 | 195 | 0.000 |
| 10 | 13.55 | 34.68 | 5.76 | 0.04 | 0.70 | 8.72 | 8.02 | 10 | 13.55 | 34.68 | 5.76 | 26.05 | 197 | 0.020 |
| 20 | 13.58 | 34.70 | 5.76 | 0.03 | 0.05 | 9.45 | 8.13 | 20 | 13.58 | 34.70 | 5.76 | 26.06 | 196 | 0.039 |
| 30 | 13.54 | 34.68 | 5.74 | 0.04 | 0.05 | 10.18 | 7.88 | 30 | 13.54 | 34.68 | 5.74 | 26.05 | 196 | 0.059 |
| 50 | 13.55 | 34.68 | 5.69 | 0.04 | 0.06 | 11.63 | 7.93 | 50 | 13.55 | 34.68 | 5.69 | 26.05 | 197 | 0.098 |
| 75 | 13.53 | 34.69 | 5.65 | 0.03 | 0.06 | 12.36 | 7.85 | 75 | 13.53 | 34.69 | 5.65 | 26.06 | 196 | 0.148 |
| 100 | 13.48 | 34.67 | 5.70 | 0.03 | 0.07 | 12.36 | 8.07 | 100 | 13.48 | 34.67 | 5.70 | 26.06 | 196 | 0.197 |
| 125 | 13.41 | 34.67 | 5.72 | 0.10 | 0.05 | 13.09 | 7.99 | 125 | 13.41 | 34.67 | 5.72 | 26.07 | 195 | 0.247 |
| 底133 | 13.06 | 34.67 | 5.66 | 0.11 | 0.04 | 15.99 | 7.82 | — | — | — | — | — | — | — |

8월(August) 조사선(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 15 | 09.00 | 45 | 7 | 6 | SW 3 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1010.6 | 21.6 | | Cu | 3 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ⊿D dyn. m |
| 0 | 16.96 | 34.04 | 6.06 | 0.03 | 0.20 | 15.99 | 8.32 | 0 | 16.96 | 34.04 | 6.06 | 24.81 | 315 | 0.000 |
| 10 | 13.99 | 34.25 | 5.26 | 0.20 | 0.04 | 23.26 | 8.40 | 10 | 13.99 | 34.25 | 5.26 | 25.63 | 237 | 0.028 |
| 20 | 13.44 | 34.32 | 4.52 | 0.17 | 0.18 | 61.80 | 8.00 | 20 | 13.44 | 34.32 | 4.52 | 25.80 | 221 | 0.051 |
| 30 | 9.14 | 34.26 | 5.03 | 0.24 | 0.54 | 43.62 | 7.74 | 30 | 9.14 | 34.26 | 5.03 | 26.53 | 151 | 0.069 |
| 底42 | 7.93 | 34.23 | 5.30 | 0.24 | 0.34 | 26.17 | 8.00 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 15 | 1000 | 115 | 7 | 5 | SW 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1010.5 | 22.9 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 19.41 | 33.83 | 6.58 | 0.00 | 0.22 | 17.45 | 7.95 | 0 | 19.41 | 33.83 | 6.58 | 24.05 | 388 | 0.000 |
| 10 | 14.29 | 34.10 | 5.63 | 0.15 | 0.07 | 29.81 | 8.43 | 10 | 14.29 | 34.10 | 5.63 | 25.45 | 254 | 0.032 |
| 20 | 12.74 | 34.30 | 4.52 | 0.21 | 0.05 | 31.26 | 8.25 | 20 | 12.74 | 34.30 | 4.52 | 25.92 | 209 | 0.055 |
| 30 | 11.03 | 34.30 | 5.14 | 0.31 | 0.09 | 58.89 | 8.30 | 30 | 11.03 | 34.30 | 5.14 | 26.24 | 178 | 0.075 |
| 50 | 7.28 | 34.17 | 5.22 | 0.39 | 0.17 | 31.26 | 8.09 | 50 | 7.28 | 34.17 | 5.22 | 26.75 | 130 | 0.106 |
| 75 | 2.98 | 34.02 | 5.75 | 0.41 | 0.08 | 23.26 | 8.15 | 75 | 2.98 | 34.02 | 5.75 | 27.13 | 95 | 0.134 |
| 96 | 2.01 | 34.14 | 5.55 | 0.62 | 0.08 | 31.26 | 8.11 | 100 | 2.01 | 34.14 | 5.55 | 27.31 | 78 | 0.156 |
| 底 | 18.3 | 33.99 | 5.65 | 0.83 | 0.12 | 32.72 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 15 | 13.00 | 1400 | 2 | 15 | SW 4 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 4 | 1010 | 27.8 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.09 | 32.43 | 5.14 | 0 | 0.12 | 14.54 | 8.43 | 0 | 27.09 | 32.43 | 5.14 | 20.78 | 700 | 0.000 |
| 10 | 26.93 | 32.43 | 5.05 | 0 | 0 | 14.54 | 8.43 | 10 | 26.93 | 32.43 | 5.05 | 20.82 | 696 | 0.070 |
| 20 | 25.11 | 33.04 | 5.34 | 0 | 0 | 23.99 | 8.38 | 20 | 25.11 | 33.04 | 5.34 | 21.85 | 598 | 0.135 |
| 30 | 21.01 | 33.57 | 5.75 | 0 | 0 | 19.63 | 8.40 | 30 | 21.01 | 33.57 | 5.75 | 23.43 | 447 | 0.187 |
| 50 | 17.25 | 34.13 | 5.65 | 0.10 | 0 | 14.54 | 8.31 | 50 | 16.31 | 34.26 | 5.35 | 25.13 | 284 | 0.260 |
| 75 | 14.47 | 34.3[illegible] | 4.[illegible] | 0.[illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 86 | 14.84 | 34.47 | 4.91 | 0.32 | 0.26 | 18.90 | 8.22 | 100 | 7.28 | 34.34 | 5.52 | 26.89 | 118 | 0.377 |
| 122 | 1.58 | — | 5.99 | 0.53 | 0.19 | 31.99 | 8.03 | 125 | 0.84 | 34.07 | 6.20 | 27.33 | 76 | 0.401 |
| 160 | 1.26 | 34.00 | 6.21 | 0.87 | 0.15 | 40.71 | 8.10 | 150 | 0.99 | 34.07 | 6.10 | 27.24 | 84 | 0.421 |
| 224 | 0.76 | 34.01 | 5.84 | 0.63 | 0.21 | 37.08 | — | 200 | 0.61 | 34.01 | 5.70 | 27.29 | 79 | 0.462 |
| 268 | 0.57 | 34.01 | 6.16 | 0.77 | 0.14 | 36.35 | 8.02 | 250 | 0.50 | 34.00 | 5.63 | 27.29 | 79 | 0.501 |
| 329 | 0.46 | 34.00 | 5.65 | 0.78 | 0.12 | 35.62 | 8.00 | — | — | — | — | — | — | — |
| [illegible] | 0.37 | 34.01 | 5.69 | 0.69 | 0.30 | 42.17 | 8.20 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 15 | 16.55 | 182 | 2 | 19 | SW 4 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 4 | 1010 | 29.1 | | Cu | 3 | CB |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.48 | 33.03 | 4.83 | 0.00 | 0.03 | 14.54 | 8.60 | 0 | 27.48 | 33.03 | 4.83 | 21.10 | 669 | 0.000 |
| 10 | 27.47 | 33.23 | 4.89 | 0.01 | 0.03 | 15.99 | 8.50 | 10 | 27.47 | 33.23 | 4.89 | 21.16 | 654 | 0.066 |
| 20 | 25.28 | 33.16 | 5.26 | 0.00 | 0.00 | 18.18 | 8.60 | 20 | 25.28 | 33.16 | 5.26 | 21.89 | 593 | 0.129 |
| 30 | 22.50 | 33.76 | 6.82 | 0.00 | 0.01 | 24.72 | 8.30 | 30 | 22.50 | 33.76 | 6.82 | 23.16 | 472 | 0.182 |
| 50 | 18.37 | 34.09 | 5.57 | 0.00 | 0.00 | 16.72 | 8.05 | 50 | 18.37 | 34.09 | 5.57 | 24.50 | 344 | 0.264 |
| 75 | 16.07 | 34.41 | 4.79 | 0.00 | 0.03 | 21.08 | 8.30 | 75 | 16.07 | 34.41 | 4.79 | 25.29 | 269 | 0.341 |
| 91 | 15.42 | 34.47 | 5.53 | 0.31 | 0.00 | 24.72 | 8.40 | 100 | 15.42 | 34.47 | 5.33 | 25.49 | 250 | 0.407 |
| 147 | 12.89 | 34.43 | 5.14 | 0.28 | 0.04 | 13.81 | 8.12 | 125 | 12.89 | 34.43 | 5.14 | 26.00 | 202 | 0.464 |
| 177 | 1.88 | 34.08 | 5.64 | 0.49 | 0.02 | 35.62 | 7.70 | 150 | 1.88 | 34.08 | 5.64 | 27.26 | 82 | 0.500 |
| 底 | 1.58 | 34.02 | 5.55 | 0.77 | 0.31 | 61.80 | 7.84 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 15 | 2005 | 130 | | | NE 4 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1011.5 | 27.7 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.80 | — | 4.93 | 0.00 | 0.00 | 15.99 | 8.30 | 0 | 26.80 | — | 4.93 | | | |
| 10 | 26.03 | 32.92 | 4.81 | 0.00 | 0.02 | 10.18 | 8.30 | 10 | 26.03 | 32.92 | 4.81 | | | |
| 20 | 25.55 | 33.03 | 5.65 | 0.00 | 0.04 | 12.13 | 8.05 | 20 | 25.55 | 33.03 | 5.65 | | | |
| 30 | 20.03 | 33.63 | 5.75 | 0.00 | 0.00 | 13.09 | 8.04 | 30 | 20.03 | 33.63 | 5.75 | | | |
| 50 | 16.20 | 34.24 | 5.29 | 0.00 | 0.32 | 28.35 | 8.21 | 50 | 15.72 | 34.34 | 5.13 | | | |
| 75 | 15.26 | 34.45 | 4.73 | 0.00 | 0.09 | 24.72 | — | 75 | 15.23 | 34.49 | 4.35 | | | |
| 80 | 14.54 | 34.47 | 4.52 | 0.06 | 0.29 | 16.72 | 8.30 | 100 | 12.88 | 34.42 | 5.65 | | | |
| 底 | 12.88 | 34.42 | 5.65 | 0.14 | 0.12 | 13.09 | 8.20 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 15 | 23.45 | 121 | | | NE 3 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | | 28.0 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt g/L | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.77 | 31.91 | 4.94 | 0.00 | 0.00 | 18.18 | 8.43 | 0 | 27.77 | 32.91 | 4.94 | 20.92 | 687 | 0.000 |
| 10 | 27.73 | 32.91 | 4.73 | 0.00 | 0.04 | 14.54 | 8.35 | 10 | 27.73 | 32.91 | 4.73 | 20.93 | 685 | 0.069 |
| 20 | 27.38 | 32.99 | 4.78 | 0.00 | 0.00 | 13.09 | 8.40 | 20 | 27.38 | 32.99 | 4.78 | 21.11 | 669 | 0.136 |
| 30 | 26.38 | 33.25 | 5.14 | 0.00 | 0.00 | 80.70 | 8.32 | 30 | 26.38 | 33.25 | 5.14 | 21.62 | 619 | 0.201 |
| 50 | 21.84 | 34.20 | 4.62 | 0.00 | 0.00 | 94.51 | 8.06 | 50 | 21.84 | 34.20 | 4.62 | 23.68 | 423 | 0.305 |
| 75 | 20.40 | 34.41 | 4.95 | 0.00 | 0.00 | 76.34 | 8.10 | 75 | 20.40 | 34.41 | 4.95 | 24.23 | 370 | 0.405 |
| 86 | 19.04 | 34.43 | 4.81 | 0.00 | 0.00 | 154.12 | 8.12 | 100 | 19.04 | 34.43 | 4.81 | 24.60 | 335 | 0.494 |
| 底 | 18.34 | 34.47 | 4.73 | 0.14 | 0.55 | 75.61 | 8.20 | — | — | — | — | — | — | — |

# 208선 해 양 관 측 성 적

## Oceanographic Data Line 208

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Watar Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 11 | 01.35 | 60 | | | NNW 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 3 | 1023.5 | 6.2 | 5.9 | St | 7 | C |

| OBSERVED | | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$ Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.96 | 34.63 | 5.89 | 0.14 | 0.07 | 10.91 | 7.85 | 0 | 12.96 | 34.63 | 5.89 | 26.13 | 189 | 0.000 |
| 10 | 13.07 | 34.74 | 5.83 | 0.08 | — | 11.63 | 7.98 | 10 | 13.07 | 34.74 | 5.83 | 26.20 | 183 | 0.019 |
| 20 | 12.97 | 34.61 | 5.91 | 0.10 | 0.07 | 13.09 | 7.90 | 20 | 12.97 | 34.61 | 5.91 | 26.12 | 191 | 0.037 |
| 30 | 12.61 | 34.58 | 5.98 | 0.07 | 0.10 | 13.81 | 8.03 | 30 | 12.61 | 34.58 | 5.98 | 26.16 | 186 | 0.056 |
| — | — | — | — | — | — | — | — | 50 | 11.97 | 34.51 | 5.99 | 26.24 | 179 | 0.093 |
| — | — | — | — | — | — | — | — | — | | | | | | |
| — | — | — | — | — | — | — | — | — | | | | | | |
| 底 | 11.93 | 34.50 | 5.96 | 0.11 | 0.06 | 14.54 | 8.00 | — | | | | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 11 | 00.30 | 105 | | | NNW 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 3 | 1023.2 | 7.5 | 7.1 | St | 10 | C |

| OBSERVED | | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.16 | 34.64 | 6.01 | 0.07 | 0.07 | 7.27 | 8.10 | 0 | 13.16 | 34.64 | 6.01 | 26.10 | 192 | 0.000 |
| 9 | 13.40 | 34.63 | 5.91 | 0.14 | 0.32 | 8.00 | 8.00 | 10 | 13.40 | 34.63 | 5.91 | 26.05 | 197 | 0.019 |
| 19 | 13.36 | 34.66 | 5.91 | 0.10 | 0.04 | 8.00 | 7.80 | 20 | 13.36 | 34.65 | 5.91 | 26.07 | 195 | 0.039 |
| 29 | 13.36 | 34.64 | 5.88 | 0.08 | 0.04 | 8.72 | 7.82 | 30 | 13.33 | 34.63 | 5.88 | 26.06 | 196 | 0.059 |
| 49 | 12.86 | 34.63 | 5.86 | 0.08 | 0.04 | 10.18 | 7.90 | 50 | 12.85 | 34.62 | 5.86 | 26.15 | 187 | 0.097 |
| 73 | 12.80 | 34.61 | 5.84 | 0.14 | 0.03 | 13.09 | 8.10 | 75 | 12.79 | 34.60 | 5.84 | 26.15 | 187 | 0.144 |
| — | — | — | — | — | — | — | — | 100 | 12.71 | 34.59 | 5.86 | 26.15 | 187 | 0.129 |
| 底 | 12.70 | 34.59 | 5.87 | 0.12 | 0.11 | 13.81 | 8.32 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 10 | 23.00 | 140 | | | N0.3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1023.2 | 6.9 | 6.7 | St | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.51 | 34.63 | 5.78 | 0.08 | 0.02 | 6.54 | 7.98 | 0 | 13.51 | 34.63 | 5.78 | 26.02 | 200 | 0.000 |
| 9 | 13.51 | 34.77 | 5.76 | — | — | — | 8.10 | 10 | 13.51 | 34.66 | 5.76 | 26.05 | 197 | 0.020 |
| 19 | 13.54 | 34.64 | 5.76 | 0.06 | 0.04 | 7.27 | — | 20 | 13.54 | 34.63 | 5.76 | 26.02 | 200 | 0.040 |
| 29 | 13.56 | 34.63 | 5.77 | 0.14 | 0.04 | 8.00 | 8.12 | 30 | 13.56 | 34.63 | 5.77 | 26.01 | 201 | 0.060 |
| 48 | 13.56 | 34.63 | 5.73 | 0.14 | 0.08 | 12.36 | 8.10 | 50 | 13.53 | 34.63 | 5.73 | 26.02 | 200 | 0.100 |
| 72 | 13.41 | 34.63 | 5.75 | 0.14 | 0.07 | 10.91 | 8.15 | 75 | 13.50 | 34.63 | 5.75 | 26.02 | 199 | 0.150 |
| 91 | 13.35 | 34.63 | 5.73 | 0.15 | 0.06 | 13.81 | 7.93 | 100 | 13.35 | 34.62 | 5.73 | 25.87 | 214 | 0.203 |
| 120 | 13.11 | 34.62 | 5.73 | 0.17 | 0.06 | 15.99 | 8.06 | — | — | — | — | — | — | — |
| 底 | 13.11 | 34.61 | 5.71 | 0.15 | 0.06 | 17.45 | 8.00 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 10 | 21.30 | 150 | | | W 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1022.3 | 7.7 | 7.4 | St | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.14 | 34.62 | 5.89 | 0.17 | 0.09 | 6.54 | 8.12 | 0 | 13.14 | 34.62 | 5.89 | 26.09 | 193 | 0.000 |
| 9 | 13.14 | 34.64 | 5.89 | 0.17 | 0.10 | 7.27 | 8.12 | 10 | 13.13 | 34.63 | 5.89 | 26.10 | 192 | 0.019 |
| 19 | 13.10 | 34.63 | 5.87 | 0.20 | 0.12 | 8.72 | 8.13 | 20 | 13.09 | 34.63 | 5.87 | 26.11 | 191 | 0.038 |
| 29 | 13.03 | 34.63 | 5.83 | 0.27 | 0.05 | 10.18 | 8.16 | 30 | 13.02 | 34.63 | 5.83 | 26.12 | 190 | 0.058 |
| 49 | 13.06 | 34.63 | 5.86 | 0.27 | 0.04 | 11.63 | 8.15 | 50 | 13.06 | 34.62 | 5.86 | 26.11 | 191 | 0.096 |
| 73 | 13.04 | 34.63 | 5.86 | 0.24 | 0.03 | 13.81 | 8.10 | 75 | 13.03 | 34.63 | 5.86 | 26.12 | 190 | 0.144 |
| 98 | 12.77 | 34.77 | 5.86 | 0.25 | 0.09 | 13.54 | 8.10 | 100 | 12.86 | 34.76 | 5.83 | 26.25 | 177 | 0.190 |
| 122 | 12.52 | 34.59 | 5.82 | 0.28 | 0.05 | 15.27 | 8.15 | 125 | 12.49 | 34.58 | 5.80 | 26.19 | 184 | 0.236 |
| 底 | 11.58 | 34.52 | 5.80 | 0.21 | 0.07 | 16.72 | 8.20 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 10 | 1935 | 124 | | | W 3 | W 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1021.3 | 7.8 | 7.7 | St | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.25 | 34.64 | 5.90 | 0.21 | 0.23 | 2.91 | 8.00 | 0 | 13.25 | 34.64 | 5.90 | 26.08 | 194 | 0.000 |
| 9 | 13.32 | 34.65 | 5.87 | 0.15 | 0.05 | 3.64 | 8.07 | 10 | 13.32 | 34.64 | 5.87 | 26.07 | 195 | 0.019 |
| 19 | 13.33 | 34.64 | 5.88 | 0.15 | 0.05 | 4.36 | 8.11 | 20 | 13.32 | 34.64 | 5.88 | 26.07 | 195 | 0.039 |
| 29 | 13.33 | 34.71 | 5.84 | 0.18 | 0.07 | 5.09 | 8.13 | 30 | 13.33 | 34.71 | 5.84 | 26.12 | 190 | 0.058 |
| 49 | 13.36 | 34.66 | 5.84 | 0.22 | 0.02 | 5.09 | 8.12 | 50 | 13.35 | 34.65 | 5.84 | 26.08 | 194 | 0.097 |
| 74 | 13.15 | 34.64 | 5.76 | 0.22 | 0.03 | 5.82 | 8.11 | 75 | 13.14 | 34.64 | 5.76 | 26.10 | 192 | 0.146 |
| 99 | 13.15 | 34.65 | 5.72 | 0.08 | 0.05 | 6.54 | 8.10 | 100 | 13.15 | 34.65 | 5.72 | 26.11 | 191 | 0.194 |
| 底 | 13.15 | 34.63 | 5.73 | 0.14 | 0.05 | 8.00 | 8.12 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 10 | 18.20 | 118 | 3 | 15 | WNW 3 | 10.2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WNW | 4 | 1021.2 | 7.7 | 9.5 | St | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.42 | 34.74 | 5.97 | 0.11 | 0.05 | 8.00 | 8.10 | 0 | 13.42 | 34.74 | 5.97 | 26.13 | 190 | 0.000 |
| 9 | 13.61 | 34.68 | 5.89 | 0.15 | 0.05 | 8.72 | 8.10 | 10 | 13.61 | 34.67 | 5.89 | 26.04 | 198 | 0.019 |
| 18 | 13.63 | — | 5.86 | 0.18 | 0.03 | 10.18 | 8.10 | 20 | 13.63 | 34.67 | 5.85 | 26.03 | 199 | 0.039 |
| 28 | 13.61 | 34.69 | 5.80 | 0.14 | — | 10.91 | 8.18 | 30 | 13.57 | 34.69 | 5.79 | 26.05 | 196 | 0.059 |
| 47 | 13.24 | 34.68 | 5.78 | 0.19 | 0.05 | 11.63 | 7.92 | 50 | 13.23 | 34.67 | 5.78 | 26.11 | 191 | 0.098 |
| 70 | 13.28 | 34.64 | 5.76 | 0.18 | 0.04 | 12.36 | 8.00 | 75 | 13.21 | 34.63 | 5.76 | 26.09 | 193 | 0.146 |
| 93 | 13.12 | 34.63 | 5.77 | 0.28 | 0.06 | 13.81 | — | 100 | 13.28 | 34.62 | 5.77 | 26.06 | 196 | 0.196 |
| 底 | 13.94 | 34.60 | 5.76 | 0.25 | 0.06 | 15.27 | 8.00 | | | | | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 10 | 1645 | 122 | 3 | 15 | SSW 3 | 0.3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1020.1 | 7.7 | 7.4 | R | 10 | R |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.88 | 34.67 | 5.76 | 0.11 | 0.13 | 5.09 | 8.07 | 0 | 13.88 | 34.67 | 5.76 | 25.98 | 204 | 0.000 |
| 9 | 13.93 | 34.67 | 5.68 | 0.07 | 0.07 | 6.54 | 8.10 | 10 | 13.93 | 34.67 | 5.69 | 25.96 | 205 | 0.020 |
| 19 | 13.99 | 34.68 | 5.76 | 0.07 | 0.08 | 7.27 | — | 20 | 13.98 | 34.68 | 5.76 | 25.96 | 205 | 0.041 |
| 28 | 13.94 | 34.68 | 5.77 | 0.06 | 0.04 | 7.27 | 8.05 | 30 | 13.93 | 34.68 | 5.77 | 25.97 | 204 | 0.062 |
| 48 | 13.94 | 34.71 | 5.77 | 0.17 | 0.10 | 8.72 | 8.18 | 50 | 13.93 | 34.70 | 5.76 | 25.99 | 202 | 0.102 |
| 72 | 13.91 | 34.67 | 5.65 | 0.20 | 0.06 | 9.45 | 8.01 | 75 | 13.91 | 34.67 | 5.65 | 25.97 | 205 | 0.154 |
| 96 | 13.94 | 34.68 | 5.65 | 0.11 | 0.11 | 10.18 | 8.10 | 100 | 13.94 | 34.68 | 5.65 | 25.97 | 204 | 0.205 |
| 底 | 13.95 | 34.68 | 5.65 | 0.27 | 0.23 | 11.63 | 8.13 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 10 | 1530 | 124 | 3 | 15 | SSW 2 | SSW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 2 | 1020.0 | 9.0 | 8.9 | Al-St | 5 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.87 | 34.67 | 5.73 | 0.15 | 0.10 | 11.63 | 8.07 | 0 | 13.87 | 34.67 | 5.73 | 25.98 | 204 | 0.000 |
| 10 | 13.90 | 34.70 | 5.70 | 0.11 | 0.08 | 13.81 | 8.10 | 10 | 13.90 | 34.70 | 5.70 | 25.99 | 202 | 0.020 |
| 20 | 13.89 | 34.68 | 5.67 | 0.15 | 0.05 | 18.90 | 8.10 | 20 | 13.89 | 34.68 | 5.67 | 25.98 | 203 | 0.041 |
| 30 | 13.87 | 34.68 | 5.73 | 0.07 | 0.08 | 21.81 | 8.07 | 30 | 13.87 | 34.68 | 5.73 | 25.99 | 203 | 0.061 |
| 50 | 13.89 | 34.69 | 5.72 | 0.13 | 0.03 | 22.54 | 8.10 | 50 | 13.89 | 34.69 | 5.72 | 25.99 | 203 | 0.102 |
| 75 | 13.95 | 34.68 | 5.75 | 0.08 | 0.02 | 23.26 | 8.10 | 75 | 13.95 | 34.68 | 5.75 | 25.97 | 205 | 0.153 |
| 100 | 13.91 | 34.68 | 5.67 | 0.11 | 0.03 | 24.72 | 8.08 | 100 | 13.91 | 34.68 | 5.67 | 25.98 | 204 | 0.205 |
| 底 | 13.90 | 34.69 | 5.66 | 0.13 | 0.05 | 26.17 | 8.12 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 10 | 1315 | 120 | 4 | 14 | SSW 2 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 3 | 1021.0 | 8.1 | 7.7 | R | 10 | R |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.45 | 34.64 | 5.79 | 0.10 | 0.03 | 7.27 | 8.15 | 0 | 13.46 | 34.64 | 5.79 | 26.04 | 198 | 0.000 |
| 9 | 13.79 | 34.68 | 5.67 | 0.11 | 0.02 | 8.00 | 8.10 | 10 | 13.79 | 34.68 | 5.67 | 26.00 | 201 | 0.020 |
| 19 | 13.87 | 34.69 | 5.66 | 0.14 | 0.05 | 8.72 | 8.13 | 20 | 13.87 | 34.69 | 5.66 | 25.99 | 202 | 0.040 |
| 29 | 13.85 | 34.73 | 5.67 | 0.01 | 0.03 | 9.45 | 8.10 | 30 | 13.85 | 34.73 | 5.67 | 26.03 | 199 | 0.060 |
| 48 | 13.84 | 34.68 | 5.82 | 0.15 | 0.04 | 10.21 | 8.05 | 50 | 13.84 | 34.68 | 5.82 | 25.99 | 202 | 0.101 |
| 73 | 13.83 | 34.69 | 5.84 | 0.20 | 0.03 | 12.36 | 8.02 | 75 | 13.83 | 34.69 | 5.84 | 26.00 | 201 | 0.152 |
| 97 | 13.83 | 34.69 | 5.69 | 0.07 | 0.02 | 13.09 | 7.98 | 100 | 13.83 | 34.69 | 5.68 | 26.00 | 201 | 0.202 |
| 底 | 13.83 | 34.74 | 5.67 | 0.13 | 0.02 | 13.81 | 8.00 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 10 | 1250 | 105 | 4 | 14 | SSW 2 | SSW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 3 | 1021.2 | 9.0 | 8.9 | St | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.67 | 34.58 | 5.78 | 0.14 | 0.03 | 6.54 | 8.10 | 0 | 13.67 | 34.58 | 5.78 | 25.95 | 206 | 0.000 |
| 10 | 13.76 | 34.69 | 5.73 | 0.14 | 0.02 | 5.82 | 8.12 | 10 | 13.76 | 34.69 | 5.78 | 26.02 | 200 | 0.020 |
| 20 | 13.76 | 34.69 | 5.70 | 0.13 | 0.02 | 4.36 | 8.10 | 20 | 13.76 | 34.69 | 5.70 | 26.02 | 200 | 0.040 |
| 30 | 13.75 | 34.69 | 5.72 | 0.15 | 0.06 | 3.64 | 8.09 | 30 | 13.75 | 34.69 | 5.72 | 26.02 | 200 | 0.060 |
| 50 | 13.76 | 34.70 | 5.73 | 0.13 | 0.06 | 5.09 | 8.09 | 50 | 13.76 | 34.70 | 5.73 | 26.02 | 199 | 0.101 |
| 75 | 13.75 | 34.69 | 5.76 | 0.11 | 0.04 | 8.00 | 8.10 | 75 | 13.75 | 34.69 | 5.76 | 26.02 | 200 | 0.151 |
| — | — | — | — | — | — | — | — | 100 | 13.15 | 34.69 | 5.78 | 26.14 | 188 | 0.200 |
| 底 | 13.08 | 34.69 | 5.78 | 0.15 | 0.04 | 10.18 | 8.12 | — | — | — | — | — | — | — |

8월(August) 조사선(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 14 | 0715 | 52 | 7 | 7 | S 3 | S 2 |

| Wigß | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | 1009 | 21.9 | 21.8 | AS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn·m |
| 0 | 16.95 | 33.82 | 5.34 | 0.15 | 0.20 | 27.63 | 8.32 | 0 | 16.95 | 33.82 | 5.34 | 24.64 | 331 | 0.000 |
| 10 | 13.18 | 34.18 | 5.05 | 0.24 | 0.15 | 26.89 | 8.22 | 10 | 13.18 | 34.18 | 5.05 | 25.74 | 226 | 0.028 |
| 20 | 10.69 | 34.30 | 4.57 | 0.27 | 0.16 | 23.99 | 7.95 | 20 | 10.69 | 34.30 | 4.57 | 26.30 | 173 | 0.048 |
| 30 | 10.03 | 34.30 | 5.03 | 0.32 | 0.31 | 32.72 | 8.12 | 30 | 10.03 | 34.30 | 5.03 | 26.42 | 161 | 0.065 |
| — | — | — | — | — | — | — | — | 50 | 6.29 | 34.17 | 5.12 | 26.88 | 118 | 0.093 |
| 底 | 6.29 | 34.17 | 5.12 | 0.49 | 0.18 | 26.89 | 8.34 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 14 | 0600 | 119 | | | S 4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1008 | 25.8 | 25.7 | AS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.29 | 32.59 | 4.74 | 0 | 0.11 | 40.71 | 8.49 | 0 | 25.29 | 32.59 | 4.74 | 21.46 | 635 | 0.000 |
| 10 | 24.92 | 32.61 | 4.80 | 0 | 0.05 | 15.27 | 8.65 | 10 | 24.34 | 32.65 | 4.83 | 21.79 | 603 | 0.062 |
| 20 | 19.20 | 33.16 | 5.10 | 0 | 0.09 | 19.63 | 8.40 | 20 | 18.36 | 33.30 | 5.14 | 23.90 | 401 | 0.112 |
| 30 | 16.52 | 33.72 | 5.17 | 0.07 | 0.08 | 16.72 | 8.40 | 30 | 15.81 | 33.93 | 4.93 | 24.99 | 298 | 0.147 |
| 50 | 14.76 | 34.43 | 3.95 | 0.14 | 0.02 | 23.99 | 8.40 | 50 | 14.66 | 34.49 | 3.91 | 25.67 | 233 | 0.201 |
| 75 | 14.40 | 34.45 | 4.14 | 0.21 | 0.10 | 27.63 | 8.36 | 75 | 13.64 | 34.43 | 4.21 | 25.84 | 217 | 0.257 |
| 93 | 12.33 | 34.37 | 4.37 | 0.36 | 0.12 | 18.18 | 8.55 | 100 | 9.79 | 34.32 | 4.62 | 26.47 | 157 | 0.304 |
| 底 | 7.91 | 34.26 | 4.89 | 0.29 | 0.19 | 38.53 | 8.02 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 14 | 0345 | 140 | | | S 4 | S 3 |

| Wind | | Boro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direcrion | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1007 | 27.9 | 27.3 | Ns | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.90 | 32.70 | 4.51 | 0 | 0.12 | 11.63 | 8.32 | 0 | 27.90 | 32.70 | 4.51 | 20.72 | 706 | 0.000 |
| 10 | 27.73 | 32.96 | 4.50 | 0 | 2.03 | 22.54 | 8.40 | 10 | 27.73 | 32.96 | 4.50 | 20.97 | 682 | 0.069 |
| 20 | 23.36 | 33.30 | 5.85 | 0 | 0.04 | 18.18 | 8.35 | 20 | 23.36 | 33.30 | 5.85 | 22.56 | 529 | 0.130 |
| 30 | 19.91 | 33.98 | 5.47 | 0 | 0 | 14.54 | 8.30 | 30 | 19.91 | 33.98 | 5.47 | 24.03 | 390 | 0.176 |
| 50 | 17.66 | 34.21 | 4.78 | 0.13 | 0 | 18.90 | 7.60 | 50 | 17.66 | 34.21 | 4.78 | 24.77 | 319 | 0.247 |
| 75 | 16.21 | 34.24 | 4.70 | 0.15 | 0.08 | 21.81 | 8.12 | 75 | 16.21 | 34.24 | 4.70 | 25.13 | 284 | 0.323 |
| 89 | 15.74 | 34.38 | 4.23 | 0.14 | 0.06 | 25.45 | — | 100 | 15.34 | 34.38 | 4.23 | 25.44 | 255 | 0.391 |
| 123 | 14.91 | 34.48 | 4.32 | 0.22 | 0.12 | 25.45 | 8.00 | 125 | 14.91 | 34.48 | 4.32 | 25.61 | 239 | 0.454 |
| 底 | 14.37 | 34.48 | 4.33 | 0.21 | 0.24 | 26.89 | 8.23 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 14 | 0200 | 145 | 2 | | S 4 | S 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1007 | 27.8 | 27.2 | Ns | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.79 | 32.77 | 4.47 | 0.06 | 0.06 | 15.99 | 8.28 | 0 | 27.79 | 32.77 | 4.47 | 20.81 | 697 | 0.000 |
| 10 | 27.78 | 32.78 | 4.33 | 0.01 | 0 | 13.81 | 8.40 | 10 | 27.78 | 32.78 | 4.33 | 20.82 | 696 | 0.070 |
| 20 | 27.20 | — | 4.42 | 0 | 0.03 | 17.45 | 8.42 | 20 | 27.20 | 32.99 | 4.42 | 21.17 | 663 | 0.138 |
| 30 | 23.05 | 33.32 | 5.00 | 0.01 | 0.05 | 23.26 | 8.50 | 30 | 23.05 | 33.32 | 5.00 | 22.67 | 519 | 0.197 |
| 50 | 19.20 | 34.10 | 4.87 | 0 | 0.05 | 18.90 | 8.48 | 50 | 19.20 | 34.10 | 4.87 | 24.30 | 363 | 0.285 |
| 75 | 16.34 | 34.30 | 4.51 | 0.10 | 0.01 | 16.72 | 8.43 | 75 | 16.34 | 34.30 | 4.51 | 25.15 | 282 | 0.366 |
| 100 | 15.53 | 34.38 | 4.44 | 0.15 | 0.24 | 32.72 | 8.20 | 100 | 15.53 | 34.38 | 4.44 | 25.40 | 259 | 0.435 |
| 130 | 14.84 | 34.44 | 4.04 | 0.29 | 0.20 | 26.89 | 8.11 | 125 | 14.84 | 34.44 | 4.04 | 25.59 | 240 | 0.498 |
| 底 | 13.35 | 34.46 | 4.23 | 0.49 | 0.12 | 26.89 | 8.20 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 14 | 0050 | 128 | | | SW 4 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 4 | 1005.6 | 27.2 | 27.0 | Ns | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.74 | 32.85 | 4.47 | 0 | 0.13 | 15.12 | 8.46 | 0 | 27.74 | 32.85 | 4.47 | 20.89 | 690 | 0.000 |
| 10 | 27.77 | 32.87 | 4.42 | 0.01 | — | 15.27 | 8.30 | 10 | 27.77 | 32.87 | 4.42 | 20.89 | 689 | 0.069 |
| 20 | 26.97 | 33.05 | 4.61 | 0.01 | 0.08 | 18.90 | 8.28 | 20 | 26.97 | 33.05 | 4.61 | 21.28 | 652 | 0.136 |
| 30 | 22.60 | 33.77 | 4.97 | 0.04 | 0.07 | 29.08 | 8.03 | 30 | 22.60 | 33.77 | 4.97 | 23.13 | 475 | 0.192 |
| 50 | 18.41 | 34.23 | 4.97 | 0.07 | 0.01 | 29.81 | 7.65 | 50 | 18.41 | 34.28 | 4.97 | 24.64 | 331 | 0.273 |
| 75 | 15.98 | 34.22 | 4.30 | 0.21 | 0.04 | 17.45 | 8.20 | 75 | 15.98 | 34.22 | 4.30 | 25.17 | 280 | 0.350 |
| 94 | 15.18 | 34.45 | 4.12 | 0.36 | 0.32 | 36.35 | 8.20 | 100 | 15.18 | 34.45 | 4.21 | 25.53 | 246 | 0.417 |
| — | — | — | — | — | — | — | — | 125 | 14.89 | 34.49 | 4.23 | 25.62 | 238 | 0.478 |
| 底 | 14.89 | 34.49 | 4.23 | 0.31 | 0.19 | 18.90 | 8.20 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 13 | 2330 | 121 | | | SN 4 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 4 | 1005 | 27.1 | 27.2 | Cu | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.78 | 32.37 | 4.64 | 0 | 0.06 | 13.81 | 8.00 | 0 | 27.78 | 32.87 | 4.64 | 20.89 | 690 | 0.000 |
| 10 | 27.91 | 32.88 | — | 0 | 0.05 | 14.54 | 8.10 | 10 | 27.91 | 32.88 | 4.31 | 20.85 | 693 | 0.069 |
| 20 | 26.90 | 33.29 | 4.42 | 0 | 0 | 13.09 | — | 20 | 26.90 | 33.29 | 4.42 | 21.49 | 632 | 0.135 |
| 30 | 21.75 | 33.75 | 4.98 | 0 | 0.14 | 6.54 | 8.50 | 30 | 21.75 | 33.75 | 4.98 | 23.36 | 453 | 0.190 |
| 50 | 17.40 | 34.16 | 4.91 | 0 | 0.02 | 8.72 | 8.22 | 50 | 17.40 | 34.16 | 4.91 | 24.79 | 316 | 0.267 |
| 75 | 15.49 | 34.24 | 5.38 | 0.41 | 0 | 0 | 8.23 | 75 | 15.49 | 34.24 | 5.38 | 25.30 | 268 | 0.341 |
| 100 | 14.86 | 34.46 | 4.02 | 0.27 | 0.34 | 0 | 8.30 | 100 | 14.86 | 34.46 | 4.02 | 25.60 | 239 | 0.405 |
| 底 | 14.87 | 34.46 | 4.34 | 0.28 | 0.20 | 33.44 | 8.32 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 13 | 2215 | 122 | | | S 4 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 100.7 | 28.0 | 27.7 | NS | 10 | C |

| OBSERVED | | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$ N μg-at/L | $SiO_2$ Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σ | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.58 | 32.82 | 4.34 | 0.07 | 0.06 | 15.27 | 8.44 | 0 | 27.58 | 32.82 | 4.34 | 20.92 | 687 | 0.000 |
| 10 | 27.56 | 32.85 | 4.37 | 0.07 | 0.05 | 32.72 | 8.20 | 10 | 27.56 | 32.85 | 4.37 | 20.95 | 684 | 0.069 |
| 20 | 26.03 | 32.96 | 4.61 | 0.07 | 0 | 39.99 | 8.51 | 20 | 26.03 | 32.96 | 4.61 | 21.31 | 630 | 0.134 |
| 30 | 21.52 | 33.64 | 5.38 | 0 | 0 | 28.35 | 8.32 | 30 | 21.52 | 32.64 | 5.38 | 23.34 | 455 | 0.189 |
| 50 | 17.20 | 34.35 | 4.70 | 0.04 | 0.02 | 34.90 | 8.37 | 50 | 17.20 | 34.25 | 4.70 | 24.91 | 315 | 0.285 |
| 75 | 15.46 | 34.33 | 4.23 | 0.13 | 0.11 | 31.97 | 8.43 | 75 | 15.46 | 34.33 | 4.23 | 25.37 | 261 | 0.336 |
| 92 | 14.99 | — | 4.34 | — | — | — | — | 100 | 14.99 | 34.40 | 4.34 | 25.53 | 246 | 0.400 |
| 底 | 14.95 | 34.46 | 4.50 | 0.18 | 0.12 | 18.90 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 13 | 2040 | 124 | | | SW 3 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1005.6 | 28.1 | 27.6 | NS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.64 | 32.77 | 4.46 | 0 | 0.06 | 39.26 | 8.30 | 0 | 27.64 | 32.77 | 4.45 | 20.86 | 692 | 0.000 |
| 10 | 27.58 | 32.80 | 4.29 | 0 | 0.08 | 39.99 | 8.30 | 10 | 27.58 | 32.80 | 4.29 | 20.90 | 689 | 0.069 |
| 20 | 26.96 | 32.96 | 4.44 | 0 | 0.03 | 14.54 | 8.52 | 20 | 26.96 | 32.96 | 4.44 | 21.22 | 658 | 0.136 |
| 30 | 22.33 | 33.46 | 5.10 | 0 | 0.01 | 40.71 | 8.41 | 30 | 22.33 | 33.46 | 5.10 | 22.98 | 490 | 0.194 |
| 50 | 18.01 | 34.35 | 5.06 | 0 | — | — | 8.30 | 50 | 18.01 | 34.35 | 5.06 | 24.79 | 317 | 0.272 |
| 75 | 15.52 | 34.41 | 4.08 | 0.07 | 0 | 36.35 | 8.25 | 75 | 15.52 | 34.41 | 4.08 | 25.42 | 257 | 0.347 |
| 95 | 15.04 | 34.45 | 4.14 | 0.34 | 0.01 | 37.08 | 8.12 | 100 | 15.04 | 34.45 | 4.14 | 25.56 | 244 | 0.419 |
| 底 | 14.85 | 34.46 | 4.23 | 0.28 | 0.16 | 29.08 | 8.12 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 13 | 1920 | 125 | 2 | | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1004.5 | 27.8 | 27.1 | NS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.77 | 32.69 | 4.33 | 0 | 0 | 11.63 | 8.40 | 0 | 27.77 | 32.69 | 4.33 | 20.76 | 702 | 0.000 |
| 10 | 27.80 | 32.72 | 4.34 | 0 | 0.02 | 12.36 | 8.50 | 10 | 27.80 | 32.72 | 4.34 | 20.77 | 701 | 0.070 |
| 20 | 26.94 | 32.84 | 4.44 | 0 | 0.02 | 38.53 | 8.03 | 20 | 26.94 | 32.84 | 4.44 | 21.13 | 666 | 0.139 |
| 30 | 23.05 | 33.31 | 5.08 | 0 | 0 | 23.99 | 8.30 | 30 | 23.05 | 33.31 | 5.08 | 22.66 | 520 | 0.198 |
| 50 | 17.92 | 33.96 | 5.07 | 0.06 | 0.01 | 32.72 | 8.25 | 50 | 17.92 | 33.96 | 5.07 | 24.51 | 343 | 0.285 |
| 75 | 15.97 | 34.33 | 4.36 | 0.21 | 0.12 | 29.08 | 8.25 | 75 | 15.97 | 34.33 | 4.36 | 25.26 | 272 | 0.362 |
| 91 | 15.56 | 34.43 | 4.12 | 0.21 | 0.06 | 29.08 | 8.18 | 100 | 15.56 | 34.43 | 4.12 | 25.43 | 256 | 0.429 |
| 109 | 15.47 | 34.44 | 4.04 | 0.14 | 0.10 | 25.45 | 8.36 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 13 | 1805 | 125 | 3 | 16 | SW 3 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1004 | 27.7 | 27.0 | Ci | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.28 | 32.64 | 4.23 | 0 | 0.06 | 31.26 | 8.60 | 0 | 27.28 | 32.64 | 4.23 | 20.88 | 691 | 0.000 |
| 10 | 27.73 | 32.70 | 4.34 | 0 | 0.08 | 33.44 | 8.51 | 10 | 27.73 | 32.70 | 4.34 | 20.78 | 700 | 0.070 |
| 20 | 27.77 | 32.78 | 4.04 | 0 | 0.02 | 34.17 | 8.30 | 20 | 27.77 | 32.78 | 4.04 | 20.82 | 696 | 0.139 |
| 30 | 21.72 | 33.64 | 4.98 | 0 | 0.08 | 32.72 | 8.35 | 30 | 21.72 | 33.64 | 4.98 | 23.29 | 460 | 0.197 |
| 50 | 19.53 | 34.05 | 5.08 | 0 | 0.05 | 35.62 | 8.05 | 50 | 19.53 | 34.05 | 5.08 | 24.18 | 375 | 0.281 |
| 75 | 16.65 | 34.35 | 4.51 | 0 | — | 47.26 | 8.32 | 75 | 16.65 | 34.35 | 4.51 | 25.12 | 285 | 0.364 |
| 119 | 15.87 | 34.44 | 4.94 | 0.04 | 0.06 | 49.44 | 8.45 | 100 | 15.87 | 34.44 | 4.16 | 25.36 | 262 | 0.433 |
| 底 | 15.78 | 34.41 | 4.04 | 0.15 | 0.16 | 75.61 | 8.00 | — | — | — | — | — | — | — |

# 207선 해 양 관 측 성 적

## Oceanographic Data, Line 207

3월(March) 조사선(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 9 | 1940 | 78 | | | S 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | 1028 | 9.7 | 9.2 | St | 5 | BC |

| | OBSERVED | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.68 | 34.37 | 6.13 | 0.13 | 0.04 | 21.81 | 8.10 | 0 | 11.68 | 34.37 | 6.13 | 24.63 | 332 | 0.000 |
| 10 | 11.45 | 34.37 | 6.06 | 0.13 | 0.03 | 18.13 | 8.13 | 10 | 11.45 | 34.37 | 6.06 | 24.67 | 328 | 0.033 |
| 20 | 11.44 | 34.45 | 6.07 | 0.14 | 0.06 | 22.54 | 8.18 | 20 | 11.44 | 34.45 | 6.07 | 26.29 | 174 | 0.058 |
| 30 | 11.44 | 34.46 | 6.00 | 0.15 | 0.06 | 23.26 | 8.13 | 30 | 11.44 | 34.46 | 6.00 | 26.29 | 174 | 0.076 |
| 50 | 11.52 | 34.46 | 6.02 | 0.28 | 0.06 | 23.26 | 8.10 | 50 | 11.52 | 34.46 | 6.02 | 26.28 | 175 | 0.111 |
| 底 | 11.59 | 34.49 | 5.96 | 0.21 | 0.08 | 24.72 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 9 | 2050 | 95 | | | S 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1028 | 10.0 | 9.4 | St | 5 | BC |

| | OBSERVED | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.94 | 34.56 | 6.01 | 0.08 | 0.04 | 15.99 | 8.12 | 0 | 12.94 | 34.56 | 6.01 | 26.08 | 194 | 0.000 |
| 10 | 12.99 | 34.58 | 5.99 | 0.14 | 0.05 | 17.45 | 8.15 | 10 | 12.99 | 34.58 | 5.99 | 26.09 | 193 | 0.019 |
| 20 | 12.42 | 34.51 | 5.98 | 0.17 | 0.04 | 18.18 | 8.20 | 20 | 12.42 | 34.51 | 5.98 | 26.05 | 188 | 0.038 |
| 30 | 12.42 | 34.50 | 5.98 | 0.14 | 0.04 | 18.18 | 8.22 | 30 | 12.42 | 34.50 | 5.98 | 26.14 | 188 | 0.057 |
| 50 | 11.61 | 34.47 | 6.00 | 0.07 | 0.02 | 18.90 | 8.23 | 50 | 11.61 | 34.47 | 6.00 | 26.27 | 176 | 0.094 |
| 75 | 11.01 | 34.44 | 5.98 | 0.15 | 0.05 | 20.36 | 8.20 | 75 | 11.01 | 34.44 | 5.89 | 26.36 | 168 | 0.137 |
| 底 | 10.92 | 34.42 | 6.01 | 0.20 | 0.03 | 21.81 | 8.14 | — | — | — | — | — | — | — |

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 9 | 2140 | 115 | | | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1028 | 9.7 | 8.9 | St | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.86 | 34.63 | 6.17 | 0.06 | 0.07 | 10.91 | 8.12 | 0 | 11.86 | 34.63 | 6.17 | 26.35 | 169 | 0.000 |
| 10 | 11.73 | 34.61 | 6.09 | 0.07 | 0.04 | 12.36 | 8.17 | 10 | 11.73 | 34.61 | 6.09 | 26.36 | 168 | 0.017 |
| 20 | 13.61 | 34.61 | 6.04 | 0.15 | 0.03 | 13.09 | 8.20 | 20 | 13.61 | 34.61 | 6.04 | 25.99 | 203 | 0.035 |
| 30 | 13.59 | 34.61 | 5.98 | 0.15 | 0.06 | 13.81 | 8.20 | 30 | 13.59 | 34.61 | 5.98 | 25.99 | 203 | 0.056 |
| 50 | 12.32 | 34.55 | 6.00 | 0.14 | 0.02 | 14.54 | 8.17 | 50 | 12.32 | 34.55 | 6.00 | 26.20 | 183 | 0.094 |
| 75 | 11.19 | 34.46 | 5.98 | 0.14 | 0.01 | 14.54 | 8.22 | 75 | 11.19 | 34.46 | 5.98 | 26.34 | 169 | 0.139 |
| 90 | 10.89 | 34.33 | 5.97 | 0.14 | 0.02 | 13.81 | 8.15 | 100 | 10.89 | 34.38 | 5.97 | 26.35 | 169 | 0.182 |
| 底 | 10.83 | 34.39 | 5.89 | 0.21 | 0.08 | 14.54 | 8.05 | — | — | — | — | — | — | — |

| St No. | Cate | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 9 | 2240 | 225 | | | E 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1026.8 | 9.4 | 8.9 | St | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.74 | 34.62 | 6.05 | 0.10 | 0.12 | 10.18 | 8.10 | 0 | 13.74 | 34.62 | 6.05 | 27.97 | 205 | 0.000 |
| 10 | 13.85 | 34.62 | 5.91 | 0.11 | 0.15 | 7.27 | 8.10 | 10 | 13.85 | 34.62 | 5.91 | 25.94 | 207 | 0.021 |
| 20 | 13.83 | 34.63 | 5.86 | 0.15 | 0.21 | 8.00 | 8.20 | 20 | 13.83 | 34.63 | 5.86 | 25.96 | 206 | 0.041 |
| 30 | 13.79 | 34.61 | 5.80 | 0.13 | 0.06 | 7.27 | 8.22 | 30 | 13.79 | 34.61 | 5.80 | 25.95 | 206 | 0.062 |
| 50 | 13.76 | 34.61 | 5.78 | 0.14 | 0.05 | 8.72 | 8.25 | 50 | 13.76 | 34.61 | 5.78 | 25.95 | 206 | 0.103 |
| 75 | 13.69 | 34.61 | 5.77 | 0.14 | 0.14 | 10.91 | 8.26 | 75 | 13.69 | 34.61 | 5.77 | 25.97 | 205 | 0.155 |
| 99 | 13.47 | 34.60 | 5.79 | 0.15 | 0.13 | 12.36 | 8.28 | 100 | 12.44 | 34.59 | 5.78 | 26.01 | 201 | 0.206 |
| 124 | 12.76 | 34.54 | 5.76 | 0.18 | 0.13 | 14.54 | 8.12 | 125 | 12.74 | 34.53 | 5.78 | 26.11 | 192 | 0.256 |
| 147 | 12.41 | 34.52 | 6.32 | 0.13 | 0.09 | 15.99 | 8.13 | 150 | 12.26 | 34.50 | 6.35 | 26.17 | 185 | 0.304 |
| 195 | 10.21 | 34.33 | 6.22 | 0.14 | 0.06 | 13.81 | 8.22 | 200 | 10.27 | 34.32 | 6.18 | 26.40 | 163 | 0.393 |
| 底 | 10.29 | 34.34 | 5.98 | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 9 | 2340 | 110 | | | WSW 2 | WSW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 2 | 1026.6 | 9.7 | 9.3 | St | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.66 | 34.61 | 5.91 | 0.08 | 0.13 | — | 8.20 | 0 | 13.66 | 34.61 | 5.91 | 25.98 | 204 | 0.000 |
| 10 | 13.69 | 34.61 | 5.76 | 0.10 | 0.09 | 11.63 | 8.15 | 10 | 13.69 | 34.61 | 5.76 | 25.97 | 205 | 0.020 |
| 20 | 13.69 | 34.62 | 5.73 | 0.08 | 0.09 | 10.18 | 8.20 | 20 | 13.69 | 34.62 | 5.73 | 25.98 | 204 | 0.041 |
| 30 | 13.63 | 34.61 | 5.76 | 0.18 | — | 9.45 | 8.23 | 30 | 13.63 | 34.61 | 5.76 | 25.98 | 203 | 0.061 |
| 50 | 13.44 | 34.60 | 5.74 | 0.15 | 0.27 | 8.72 | 8.21 | 50 | 13.44 | 34.60 | 5.74 | 26.01 | 200 | 0.102 |
| 75 | 12.54 | 34.53 | 5.91 | 0.14 | 0.10 | 10.91 | 8.15 | 75 | 12.54 | 34.53 | 5.91 | 26.14 | 188 | 0.151 |
| — | — | — | — | — | — | — | — | 100 | 11.81 | 34.48 | 5.95 | 26.24 | 179 | 0.197 |
| 底 | 11.62 | 34.47 | 5.94 | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 10 | 0135 | 100 | | | SSW 2 | SSW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 2 | 1025.2 | 10.3 | 10.0 | St | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.75 | 34.62 | 5.87 | 0.07 | 0.03 | 4.36 | 8.05 | 0 | 13.75 | 34.62 | 5.87 | 25.96 | 205 | 0.000 |
| 10 | 13.77 | 34.64 | 5.83 | 0.07 | 0.02 | 8.00 | 8.10 | 10 | 13.77 | 34.64 | 5.83 | 25.98 | 204 | 0.020 |
| 20 | 13.66 | 34.66 | 5.91 | 0.15 | 0.02 | 9.45 | 8.00 | 20 | 13.66 | 34.66 | 5.91 | 26.01 | 200 | 0.041 |
| 30 | 13.62 | 34.65 | 5.87 | 0.14 | 0.04 | 10.18 | 7.85 | 30 | 13.62 | 34.65 | 5.87 | 26.01 | 200 | 0.061 |
| 50 | 13.44 | 34.65 | 5.97 | 0.15 | 0.06 | 10.91 | 7.90 | 50 | 13.44 | 34.65 | 5.97 | 26.05 | 197 | 2.101 |
| 75 | 13.44 | 34.62 | 5.89 | 0.20 | 0.02 | 13.19 | 8.05 | 75 | 13.44 | 34.62 | 5.89 | 26.03 | 199 | 0.151 |
| 100 | — | — | — | — | — | — | — | 100 | 13.34 | 34.62 | 5.86 | 26.05 | 196 | 0.201 |
| 底 | 13.34 | 34.63 | 5.86 | 0.21 | 0.03 | 15.27 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 10 | 0255 | 100 | | | S. 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1024. 6 | 10. 4 | 10. 1 | St | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13. 85 | 34. 64 | 5. 83 | 0. 07 | 0. 02 | 12. 36 | 8. 00 | 0 | 13. 85 | 34. 64 | 5. 83 | 25. 96 | 205 | 0. 000 |
| 10 | 13. 81 | 34. 64 | 5. 82 | 0. 04 | 0. 03 | 13. 81 | 8. 04 | 10 | 13. 81 | 34. 64 | 5. 82 | 25. 97 | 205 | 0. 021 |
| 20 | 13. 75 | 34. 64 | 5. 69 | 0. 15 | 0. 01 | 13. 09 | 8. 10 | 20 | 13. 75 | 34. 64 | 5. 69 | 25. 98 | 204 | 0. 041 |
| 30 | 13. 73 | 34. 64 | 5. 66 | 0. 11 | 0. 02 | 18. 90 | 8. 13 | 30 | 13. 73 | 34. 64 | 5. 66 | 25. 98 | 203 | 0. 061 |
| 50 | 13. 73 | 34. 65 | — | 0. 18 | 0. 03 | 21. 81 | 8. 18 | 50 | 13. 73 | 34. 65 | 5. 80 | 25. 99 | 202 | 0. 102 |
| 75 | 13. 73 | 34. 65 | 5. 96 | 0. 35 | 0. 02 | 23. 26 | — | 75 | 13. 73 | 34. 65 | 5. 96 | 25. 99 | 202 | 0. 153 |
| 底 | 13. 53 | 34. 65 | 5. 80 | 0. 36 | 0. 10 | 24. 72 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 10 | 1150 | 115 | | | SSW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 2 | 1024. 6 | 10. 1 | 9. 8 | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$ P μg-at/L | $NO_2$- N μg-at/L | $SiO_2$ Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | dt $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 14. 12 | 34. 25 | 5. 76 | 0. 08 | 0. 02 | 11. 63 | 8. 05 | 0 | 14. 12 | 34. 25 | 5. 76 | 25. 60 | 239 | 0. 000 |
| 10 | 14. 14 | 34. 65 | 5. 79 | 0. 13 | 0. 01 | 11. 63 | 8. 10 | 10 | 14. 14 | 34. 65 | 5. 79 | 25. 91 | 211 | 0. 023 |
| 20 | 14. 16 | 34. 65 | 5. 79 | 0. 13 | 0. 01 | 8. 72 | 8. 14 | 20 | 14. 16 | 34. 64 | 5. 72 | 25. 89 | 212 | 0. 044 |
| 30 | 14. 10 | 34. 65 | 5. 72 | 0. 11 | 0. 02 | 9. 45 | 8. 15 | 30 | 14. 10 | 34. 65 | 5. 72 | 25. 91 | 210 | 0. 065 |
| 50 | 14. 09 | 34. 64 | 5. 67 | 0. 11 | 0. 01 | 12. 31 | 8. 16 | 50 | 14. 09 | 34. 64 | 5. 67 | 25. 91 | 210 | 0. 107 |
| 75 | 14. 10 | 34. 65 | 5. 66 | 0. 14 | 0. 04 | 13. 09 | 8. 15 | 75 | 14. 10 | 34. 65 | 5. 66 | 25. 91 | 210 | 0. 160 |
| 99 | 14. 09 | 34. 65 | 5. 65 | 0. 15 | 0. 02 | 11. 63 | 8. 20 | 100 | 14. 08 | 34. 65 | 5. 65 | 25. 91 | 210 | 0. 213 |
| 底 | 14. 70 | 34. 65 | 5. 65 | 0. 20 | 0. 02 | 10. 91 | 8. 15 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 10 | 0540 | 100 | | | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| 0 | 0 | 1023.5 | 10.3 | 10.1 | St | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m | |
| 0 | 13.92 | 34.65 | 5.78 | 0.15 | 0.01 | 9.45 | 8.14 | 0 | 13.92 | 34.15 | 5.78 | 25.95 | 206 | 0.000 | |
| 10 | 13.94 | 34.69 | 5.75 | 0.13 | 0.02 | 8.72 | 8.17 | 10 | 13.94 | 34.69 | 5.75 | 25.98 | 204 | 0.021 | |
| 20 | 13.95 | 34.69 | 5.76 | 0.14 | 0.05 | 11.63 | 8.12 | 20 | 13.95 | 34.69 | 5.76 | 25.98 | 204 | 0.041 | |
| 30 | 13.94 | 34.69 | 5.67 | 0.14 | 0.08 | 12.36 | 8.03 | 30 | 13.94 | 34.69 | 5.67 | 25.98 | 204 | 0.061 | |
| 50 | 13.95 | 34.67 | 5.72 | 0.11 | 0.05 | 13.81 | 8.00 | 50 | 13.95 | 34.69 | 5.72 | 25.98 | 204 | 0.102 | |
| 75 | 13.89 | 34.68 | 5.67 | 0.17 | 0.02 | 14.54 | — | 75 | 13.89 | 34.68 | 5.67 | 25.98 | 203 | 0.154 | |
| 底 | 13.88 | 34.69 | 5.67 | 0.21 | 0.02 | 19.63 | — | — | — | — | — | — | — | — | — |

| St No. | Cate | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 10 | 0655 | 105 | | | 0 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weathey |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| 0 | 0 | 1023.1 | 10.3 | 10.1 | St | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$- P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m | |
| 0 | 13.80 | 34.67 | 5.84 | 0.14 | 0.04 | 7.27 | 8.07 | 0 | 13.80 | 34.67 | 5.84 | 25.99 | 202 | 0.000 | |
| 10 | 13.86 | 34.69 | 5.78 | 0.11 | 0.03 | 9.45 | 8.10 | 10 | 13.86 | 34.69 | 5.78 | 26.00 | 202 | 0.020 | |
| 20 | 13.96 | 34.69 | 5.75 | 0.07 | 0.03 | 9.45 | — | 20 | 13.96 | 34.69 | 5.75 | 25.99 | 203 | 0.041 | |
| 30 | 13.84 | 34.68 | 5.76 | 0.10 | 0.02 | 10.91 | 8.00 | 30 | 13.84 | 34.68 | 5.76 | 25.99 | 202 | 0.061 | |
| 50 | 13.82 | 34.69 | 5.66 | 0.10 | 0.01 | 12.36 | 8.20 | 50 | 13.82 | 34.69 | 5.66 | 26.00 | 201 | 0.101 | |
| 75 | 13.82 | 34.67 | 5.65 | 0.15 | 0.02 | 12.36 | 7.95 | 75 | 13.82 | 34.67 | 5.65 | 25.99 | 203 | 0.152 | |
| 100 | — | — | — | — | — | — | — | 100 | 13.81 | 34.69 | 5.63 | 26.01 | 201 | 0.203 | |
| 底 | 13.81 | 34.69 | 5.63 | 0.21 | 0.02 | 12.36 | 7.90 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 10 | 0830 | 95 | 4 | 16 | EW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1023.4 | 7.4 | 7.0 | R | 10 | R |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D−T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.33 | 34.63 | 5.90 | 0.17 | 0.05 | 7.27 | 7.95 | 0 | 13.33 | 34.63 | 5.90 | 26.06 | 196 | 0.000 |
| 10 | 13.39 | 34.70 | 5.87 | 0.10 | 0.03 | 8.00 | 7.98 | 10 | 13.39 | 34.70 | 5.87 | 26.10 | 192 | 0.019 |
| 20 | 13.37 | 34.71 | 5.84 | 0.14 | 0.02 | 9.45 | 8.00 | 20 | 13.37 | 34.71 | 5.84 | 26.11 | 191 | 0.039 |
| 30 | 13.41 | 34.69 | 5.83 | 0.13 | 0.01 | 11.63 | 8.00 | 30 | 13.41 | 34.69 | 5.83 | 26.09 | 193 | 0.058 |
| 50 | 13.45 | 34.71 | 5.81 | 0.14 | 0.02 | 15.27 | 8.00 | 50 | 13.45 | 34.71 | 5.81 | 26.10 | 192 | 0.097 |
| 75 | 13.39 | 34.68 | 5.86 | 0.14 | 0.01 | 16.72 | 8.05 | 75 | 13.39 | 34.68 | 5.86 | 26.06 | 195 | 0.146 |
| 底 | 13.34 | 34.68 | 5.84 | 0.11 | 0.06 | 18.90 | 8.07 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Watey Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 10 | 0950 | 74 | 3 | 16 | SSW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 1 | 1023.4 | 8.3 | 8.1 | R | 10 | R |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D−T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.30 | 34.67 | 5.92 | 0.13 | 0.18 | 5.82 | 8.06 | 0 | 13.30 | 34.67 | 5.92 | 26.10 | 193 | 0.000 |
| 10 | 13.46 | 34.70 | 5.89 | 0.13 | 0.05 | 6.54 | 8.10 | 10 | 13.45 | 34.70 | 5.89 | 26.09 | 193 | 0.019 |
| 20 | 13.28 | 34.69 | 5.84 | 0.10 | 0.06 | 10.91 | 8.10 | 20 | 13.33 | 34.69 | 5.84 | 26.09 | 193 | 0.038 |
| 30 | 13.26 | 34.70 | 5.86 | 0.09 | 0.13 | 12.35 | 8.04 | 30 | 13.26 | 34.70 | 5.86 | 26.13 | 190 | 0.058 |
| 50 | 12.93 | 34.69 | 5.87 | 0.11 | 0.03 | 14.84 | 8.02 | 50 | 13.03 | 34.69 | 5.87 | 26.09 | 193 | 0.096 |
| 底 | 12.65 | 34.67 | 5.84 | 0.11 | 0.02 | 15.72 | 8.02 | | | | | | | |

8월 (August) 조사선 (Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 12 | 2255 | 80 | | | NNE 1 | NNE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 1 | 1001.6 | 25.5 | 25.1 | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μgat-/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 24.14 | 33.04 | 5.44 | 0.07 | 0 | 28.35 | 8.30 | 0 | 24.14 | 33.04 | 5.44 | 22.14 | 570 | 0.000 |
| 10 | 20.38 | 33.45 | 4.98 | 0.07 | 0 | 42.89 | 8.30 | 10 | 20.38 | 33.45 | 4.98 | 23.51 | 439 | 0.050 |
| 20 | 18.48 | 33.93 | 4.25 | 0.04 | 0.08 | 24.72 | 8.30 | 20 | 18.48 | 33.93 | 4.25 | 24.35 | 358 | 0.090 |
| 30 | 15.29 | 34.24 | — | 0.55 | 0.13 | 54.53 | 8.21 | 30 | 15.29 | 34.24 | 4.05 | 25.34 | 265 | 0.122 |
| 50 | 12.89 | 34.38 | 4.21 | 0.27 | 0.15 | 39.99 | 8.10 | 50 | 12.89 | 34.38 | 4.21 | 25.95 | 206 | 0.169 |
| 75 | 11.44 | 34.35 | 4.22 | 0.36 | 0.12 | 34.93 | 8.10 | 75 | 11.44 | 34.35 | 4.22 | 26.21 | 182 | 0.218 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 13 | 0015 | 95 | | | NNW 0 | NNW 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 0 | 1000.8 | 26.9 | 26.6 | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.89 | 32.55 | 4.51 | 0.04 | 0 | 55.25 | 8.31 | 0 | 26.89 | 32.55 | 4.51 | 20.94 | 685 | 0.000 |
| 10 | 24.92 | 32.86 | 5.17 | 0 | 0 | 29.08 | 8.33 | 10 | 24.92 | 32.86 | 5.17 | 21.77 | 605 | 0.065 |
| 20 | 18.76 | 34.01 | 5.36 | 0.06 | 0 | 28.35 | 8.30 | 20 | 18.76 | 34.01 | 5.36 | 24.35 | 359 | 0.113 |
| 30 | 16.21 | 34.40 | 5.15 | 0.04 | 0.03 | 36.35 | 8.20 | 30 | 16.21 | 34.40 | 5.15 | 25.25 | 272 | 0.144 |
| 50 | 14.66 | 34.35 | 4.04 | 0.15 | — | 39.89 | 8.00 | 50 | 14.66 | 34.35 | 4.04 | 25.56 | 243 | 0.196 |
| 75 | 13.49 | 34.43 | 4.12 | 0.14 | 0.36 | 82.15 | 8.00 | 75 | 13.49 | 34.43 | 4.12 | 25.87 | 214 | 0.254 |
| 底 | 11.43 | 34.35 | 4.42 | 0.24 | 0.08 | 34.90 | 7.95 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 13 | 0170 | 105 | | | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1000.5 | 27.8 | 27.5 | Ac | 3 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μga-t/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.15 | 32.29 | 4.80 | 0 | 0 | 32.72 | 8.20 | 0 | 28.15 | 32.29 | 4.80 | 20.33 | 743 | 0.000 |
| 10 | 23.38 | 32.75 | 4.87 | — | — | — | 8.30 | 10 | 23.38 | 32.75 | 4.87 | 22.14 | 569 | 0.066 |
| 20 | 18.55 | 33.21 | 5.36 | 0.06 | 0 | 16.72 | 8.34 | 20 | 18.55 | 33.21 | 5.36 | 23.79 | 412 | 0.115 |
| 30 | 16.69 | 33.69 | 5.68 | 0 | 0 | 32.72 | 8.30 | 30 | 16.69 | 33.69 | 5.68 | 24.60 | 334 | 0.152 |
| 50 | 14.77 | 34.20 | 5.48 | 0.43 | 0.11 | 32.72 | 8.30 | 50 | 14.77 | 34.20 | 5.48 | 25.42 | 256 | 0.211 |
| 75 | 14.67 | 34.46 | 4.70 | 0.27 | 0.23 | 16.72 | 8.00 | 75 | 14.67 | 34.46 | 4.70 | 25.64 | 235 | 0.273 |
| 100 | — | — | — | — | — | — | — | 100 | 10.63 | 34.33 | 4.23 | 26.34 | 169 | 0.325 |
| 바닥 | 10.63 | 34.33 | 4.23 | 0.49 | 0.22 | 37.08 | 8.13 | — | — | — | — | — | — | — |

8월(August) 조사선(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 13 | 0220 | 163 | | | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1000.3 | 28.0 | 27.7 | AC | 3 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$ Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.61 | 32.17 | 4.36 | 0.14 | 0 | 6.54 | 8.32 | 0 | 27.61 | 32.17 | 4.36 | 20.42 | 735 | 0.000 |
| 10 | 26.76 | 32.17 | 4.51 | 0 | 0 | 29.08 | 8.40 | 10 | 26.76 | 32.27 | 4.51 | 20.77 | 701 | 0.072 |
| 20 | 23.04 | 32.44 | 4.98 | 0 | 0 | 16.72 | 8.11 | 20 | 23.04 | 32.44 | 4.98 | 22.00 | 583 | 0.136 |
| 30 | 18.25 | 32.50 | 5.45 | 0 | 0.02 | 24.72 | 8.25 | 30 | 18.25 | 32.50 | 5.45 | 23.32 | 457 | 0.188 |
| 50 | 16.65 | 34.20 | 4.46 | 0 | 0.07 | 29.08 | 8.26 | 50 | 16.65 | 34.20 | 4.46 | 25.00 | 296 | 0.264 |
| 75 | 14.89 | 34.33 | 4.58 | 0.21 | 0.04 | 32.72 | 8.20 | 75 | 14.89 | 34.33 | 4.58 | 25.50 | 250 | 0.332 |
| 100 | 14.61 | 34.44 | — | 0.11 | 0.04 | 80.89 | 8.03 | 100 | 14.61 | 34.44 | 4.40 | 25.65 | 235 | 0.394 |
| 125 | 14.44 | 34.44 | 4.25 | 0.14 | 0.04 | 42.89 | 8.10 | 125 | 14.44 | 34.44 | 4.25 | 25.68 | 232 | 0.453 |
| — | — | — | — | — | — | — | — | 160 | 10.81 | 34.33 | 4.47 | 26.31 | 172 | 0.504 |
| 바닥 | — | — | 4.47 | 0.21 | — | 29.38 | 8.05 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 13 | 03. 50 | 216 | | | SES 1 | SES 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SES | 1 | 1000 | 28. 1 | 27. 9 | Ac | 3 | B C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28. 80 | 32. 04 | 4. 70 | 0 | 0 | 29. 81 | 8. 02 | 0 | 27. 80 | 32. 04 | 4. 70 | 20. 26 | 750 | 0. 000 |
| 10 | 27. 30 | 32. 24 | 4. 66 | 0 | 0 | 54. 53 | 7. 92 | 10 | 27. 30 | 32. 24 | 4. 66 | 20. 57 | 720 | 0. 074 |
| 20 | 23. 90 | 39. 98 | 4. 94 | 0 | 0 | 50. 89 | — | 20 | 23. 90 | 32. 98 | 4. 94 | 22. 17 | 567 | 0. 138 |
| 30 | 18. 89 | 33. 84 | 5. 08 | 0. 03 | 0. 07 | 23. 26 | 8. 11 | 30 | 18. 89 | 33. 84 | 5. 08 | 24. 19 | 374 | 0. 185 |
| 50 | 16. 16 | 34. 27 | 4. 53 | 0. 07 | 0 | 21. 81 | 8. 22 | 50 | 16. 16 | 34. 27 | 4. 53 | 25. 17 | 281 | 0. 251 |
| 75 | 15. 18 | 34. 42 | 4. 09 | 0. 28 | 0. 02 | 17. 45 | 7. 97 | 75 | 15. 18 | 34. 42 | 4. 09 | 25. 51 | 248 | 0. 317 |
| 100 | 15. 00 | 34. 43 | 4. 18 | — | — | — | 8. 15 | 100 | 15. 00 | 34. 43 | 4. 18 | 25. 55 | 244 | 0. 380 |
| 123 | 15. 37 | 34. 47 | 4. 04 | 0. 43 | 0. 10 | 21. 81 | 7. 95 | 125 | 14. 77 | 34. 47 | 4. 04 | 25. 63 | 237 | 0. 440 |
| 146 | 13. 40 | — | 4. 33 | 0. 42 | 0 | 21. 81 | 8. 22 | 150 | 12. 84 | 34. 47 | 4. 33 | 26. 04 | 198 | 0. 496 |
| 200 | — | — | — | — | — | — | — | 200 | 7. 53 | 34. 40 | 4. 72 | 26. 89 | 117 | 0. 576 |
| 底 | 7. 14 | 34. 47 | 4. 77 | 0. 55 | 0. 05 | 8. 18 | 8. 20 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 13 | 0640 | 90 | | | SES 2 | SES 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SES | 2 | 1000. 7 | 28. 9 | 26. 8 | AC | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-6}$ $cm^3/g$ | △D dyn. m |
| 0 | 27. 92 | 32. 81 | 4. 31 | 0 | 0 | 13. 09 | 8. 10 | 0 | 27. 92 | 32. 81 | 4. 31 | 20. 80 | 698 | 0. 000 |
| 10 | 27. 51 | 32. 91 | 4. 33 | 0 | 0 | 34. 90 | — | 10 | 27. 51 | 32. 91 | 4. 33 | 21. 01 | 678 | 0. 069 |
| 20 | 24. 18 | 33. 39 | 4. 98 | 0 | 0. 04 | 26. 59 | 8. 30 | 20 | 24. 18 | 33. 39 | 4. 98 | 22. 39 | 547 | 0. 130 |
| 30 | 20. 30 | 33. 89 | 5. 45 | 0 | 0 | 8. 72 | 8. 19 | 30 | 20. 30 | 33. 89 | 5. 45 | 23. 86 | 406 | 0. 178 |
| 50 | 17. 61 | 34. 14 | 4. 42 | 0 | 0. 33 | 36. 35 | 8. 20 | 50 | 17. 61 | 34. 14 | 4. 42 | 24. 73 | 322 | 0. 251 |
| 75 | 16. 26 | 34. 31 | 4. 51 | 0. 07 | 0. 38 | 12. 36 | 8. 32 | 75 | 16. 26 | 34. 31 | 4. 51 | 25. 17 | 280 | 0. 327 |
| 底 | 16. 21 | 34. 35 | 4. 08 | 0. 08 | 0. 06 | 18. 18 | 8. 11 | — | — | | | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 13 | 0740 | 103 | 2 | 24 | E 1 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1000.5 | 26.9 | 26.4 | NS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.78 | 31.84 | 4.31 | 0.07 | 0 | 10.91 | 8.13 | 0 | 27.78 | 31.84 | 4.31 | 20.12 | 764 | 0.000 |
| 10 | 27.51 | 32.85 | 4.24 | 0.07 | 0 | 15.27 | 8.32 | 10 | 27.51 | 32.85 | 4.24 | 20.96 | 682 | 0.072 |
| 20 | 23.10 | 33.33 | 4.84 | 0.07 | 0 | 8.00 | 8.50 | 20 | 23.10 | 33.33 | 4.84 | 22.66 | 520 | 0.132 |
| 30 | 18.96 | 34.29 | 4.70 | 0.07 | 0 | 31.99 | 8.35 | 30 | 18.96 | 34.29 | 4.70 | 24.51 | 344 | 0.176 |
| 50 | 16.04 | 34.39 | 4.53 | 0.15 | 0.01 | 36.35 | 8.35 | 50 | 16.04 | 34.39 | 4.53 | 25.29 | 269 | 0.237 |
| — | — | — | — | — | — | — | — | 75 | 14.70 | 34.45 | 4.35 | 25.63 | 237 | 0.301 |
| 底 | 15.76 | 34.44 | 4.23 | 0.18 | 0 | 18.90 | 8.32 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 13 | 9.20 | 110 | 2 | 110 | E 2 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1001.5 | 26.7 | 26.2 | NS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.12 | 32.23 | 4.27 | 0.07 | 0 | 19.63 | 8.20 | 0 | 28.12 | 32.23 | 4.27 | 20.30 | 746 | 0.000 |
| 10 | 27.10 | 32.31 | 4.42 | 0.07 | 0 | 15.99 | 8.20 | 10 | 27.10 | 32.31 | 4.42 | 20.69 | 709 | 0.073 |
| 20 | 26.07 | 33.05 | 4.53 | 0.07 | 0 | 13.81 | 8.30 | 20 | 26.07 | 33.05 | 4.53 | 21.57 | 625 | 0.140 |
| 30 | 23.05 | 33.76 | 4.63 | 0 | 0 | 12.36 | 8.50 | 30 | 23.05 | 33.76 | 4.63 | 23.00 | 487 | 0.195 |
| 50 | 17.54 | — | — | — | — | — | — | 50 | 17.54 | 34.73 | 4.72 | 25.20 | 278 | 0.272 |
| 75 | 16.34 | — | — | — | — | — | — | 75 | 16.34 | 35.14 | 4.61 | 25.80 | 221 | 0.335 |
| 100 | — | — | — | — | — | — | — | 100 | 15.79 | 34.64 | 4.26 | 25.54 | 246 | 0.394 |
| 底 | 15.77 | 34.43 | 4.16 | 0.22 | 0.07 | 25.45 | 8.42 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 13 | 1015 | 110 | 8 | 21 | E 2 | E 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1001.6 | 27.3 | 27.2 | N S | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.30 | 32.35 | 4.21 | 0 | 0 | 27.63 | 8.33 | 0 | 28.30 | 32.35 | 4.21 | 20.33 | 743 | 0.000 |
| 10 | 27.30 | 32.37 | 4.33 | 0 | 0 | 51.62 | 8.45 | 10 | 27.30 | 32.37 | 4.33 | 20.67 | 711 | 0.073 |
| 20 | 26.25 | 32.81 | 4.41 | 0 | 0 | 50.16 | 8.49 | 20 | 26.25 | 32.81 | 4.41 | 21.33 | 647 | 0.141 |
| 30 | 24.77 | 32.92 | 4.46 | 0 | 0 | 31.99 | 8.55 | 30 | 24.77 | 32.92 | 4.46 | 21.86 | 596 | 0.203 |
| 50 | 18.93 | 34.13 | 4.70 | 0 | 0 | 15.99 | 8.30 | 50 | 18.93 | 34.13 | 4.58 | 24.40 | 354 | 0.298 |
| 75 | 16.65 | 34.42 | 4.63 | 0.07 | 0.04 | 32.62 | 8.45 | 75 | 16.65 | 34.42 | 4.63 | 25.17 | 281 | 0.378 |
| — | — | — | — | — | — | — | — | 100 | 16.26 | 34.45 | 4.48 | 25.29 | 270 | 0.448 |
| 底 | 16.45 | 34.42 | 4.42 | 0.13 | 0.06 | 52.52 | 8.20 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 13 | 12.55 | 105 | 2 | 16 | E 4 | E 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 4 | 1000.5 | 27.0 | 26.8 | Ns | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.07 | 32.63 | 4.62 | 0 | 0 | 43.62 | 8.52 | 0 | 28.07 | 32.63 | 4.62 | 20.61 | 716 | 0.000 |
| 10 | 28.05 | 32.59 | 4.53 | 0 | 0 | 38.53 | 8.36 | 10 | 28.05 | 32.59 | 4.53 | 20.56 | 721 | 0.072 |
| 20 | 27.39 | 32.62 | 4.31 | 0 | 0 | 35.62 | 8.47 | 20 | 27.39 | 32.62 | 4.31 | 20.82 | 696 | 0.143 |
| 30 | 22.76 | 34.11 | 4.84 | 0 | 0 | 28.35 | 8.10 | 30 | 22.76 | 34.11 | 4.84 | 23.35 | 454 | 0.200 |
| 50 | 19.87 | 34.38 | 4.33 | 0.08 | 0.04 | 29.26 | 8.28 | 50 | 19.87 | 34.38 | 4.33 | 24.34 | 359 | 0.282 |
| 75 | 18.33 | 34.42 | 4.14 | 0.20 | 0 | 34.90 | 7.87 | 75 | 18.33 | 34.42 | 4.14 | 24.76 | 319 | 0.367 |
| 100 | — | — | — | — | — | — | — | 100 | 17.60 | 34.39 | 4.14 | 24.92 | 304 | 0.446 |
| 底 | 17.60 | 34.39 | 4.14 | 0.24 | 0.27 | 39.26 | 8.40 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 13 | 14.15 | 94 | 2 | 17 | SW 4 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 4 | 1000 | 26.7 | 26.4 | NS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 27.77 | 32.63 | 4.92 | 0 | 0.05 | 29.08 | 8.35 | 0 | 27.77 | 32.63 | 4.92 | 20.71 | 707 | 0.000 |
| 10 | 27.79 | 32.62 | 4.51 | 0 | 0 | 36.35 | 8.55 | 10 | 27.79 | 32.62 | 4.51 | 20.70 | 708 | 0.071 |
| 20 | 26.00 | 33.39 | 4.51 | 0 | 0 | 37.08 | 8.53 | 20 | 26.00 | 33.39 | 4.51 | 21.84 | 598 | 0.136 |
| 30 | 24.46 | 33.71 | 4.70 | 0 | 0.14 | 35.62 | 8.25 | 30 | 24.46 | 33.71 | 4.70 | 22.55 | 530 | 0.193 |
| 50 | 21.78 | 34.41 | 4.80 | 0 | 0 | 25.45 | 8.35 | 50 | 21.78 | 34.41 | 4.80 | 23.85 | 406 | 0.287 |
| 75 | 18.15 | — | 4.23 | 0.07 | 0 | 40.71 | 8.32 | 75 | 18.15 | — | 4.23 | — | — | — |
| 底 | 17.74 | — | 3.78 | 0.11 | 0.04 | 33.53 | 7.85 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 13 | 15.25 | 87 | 2 | 16 | SW 4 | SW 2 |

| Wind | | Baro. | Air Temp. | | cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 4 | 1002.2 | 27.1 | 26.9 | NS | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 28.00 | 32.90 | 4.23 | 0.07 | 0 | 37.80 | 8.40 | 0 | 28.00 | 32.90 | 4.23 | 20.84 | 695 | 0.000 |
| 10 | 27.98 | 32.84 | 4.40 | 0.07 | 0 | 69.07 | 8.21 | 10 | 27.98 | 32.84 | 4.40 | 20.80 | 698 | 0.070 |
| 20 | 27.84 | 32.87 | 4.59 | 0.07 | 0 | 31.99 | 8.40 | 20 | 27.84 | 32.87 | 4.59 | 20.87 | 692 | 0.139 |
| 30 | 26.16 | 33.37 | 4.58 | 0.08 | 0 | 32.99 | 8.00 | 30 | 26.16 | 33.37 | 4.58 | 21.73 | 604 | 0.204 |
| 50 | 21.79 | 34.17 | 4.61 | 0.07 | 0 | 34.17 | 8.31 | 50 | 21.79 | 34.17 | 4.61 | 23.64 | 427 | 0.308 |
| 75 | 19.01 | 34.45 | 4.70 | 0.03 | 0.07 | 77.06 | 8.42 | 75 | 19.01 | 34.45 | 4.70 | 24.62 | 333 | 0.403 |
| 底 | 18.74 | 34.46 | 3.95 | 0.14 | 0.10 | 42.89 | 8.24 | — | — | — | — | — | — | — |

# 206선 해 양 관 측 성 적

## Oceanographic Data Line

2월(February) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 17 | 1255 | 62 | 5 | 10 | WNW 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WNW | 3 | 1025.6 | 3.1 | 2.4 | Ci | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.42 | 34.37 | 6.12 | 0.38 | 0.23 | 23.99 | 8.12 | 0 | 11.42 | 34.37 | 6.12 | 26.23 | 180 | 0.000 |
| 10 | 10.02 | 34.50 | 6.14 | 0.21 | 0.24 | 37.80 | 8.10 | 10 | 10.02 | 34.50 | 6.14 | 26.53 | 147 | 0.016 |
| 20 | 10.91 | 34.88 | 6.26 | 0.32 | 0.12 | 28.35 | 8.15 | 20 | 10.91 | 34.88 | 6.26 | 26.72 | 133 | 0.030 |
| 30 | 10.71 | 34.43 | 6.24 | 0.35 | 0.08 | 35.62 | 8.21 | 30 | 10.71 | 34.48 | 6.34 | 26.44 | 160 | 0.045 |
| 50 | — | — | — | — | — | — | — | 50 | 10.16 | 34.47 | 6.51 | 26.53 | 151 | 0.076 |
| 底50 | 10.16 | 34.47 | 6.51 | 0.59 | 0.09 | 44.35 | 8.22 | — | — | — | — | — | — | — |

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 3 | 1500 | 70 | 4 | 15 | S 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1021.0 | 15.1 | | CS Cu | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.32 | 34.53 | 5.95 | 0.11 | 0.08 | 19.63 | 8.15 | 0 | 13.22 | 34.53 | 5.95 | 26.00 | 201 | 0.000 |
| 10 | 13.20 | 34.59 | 6.07 | 1.08 | 0.08 | 19.63 | — | 10 | 13.20 | 34.59 | 6.07 | 26.05 | 196 | 0.020 |
| 20 | 12.91 | 34.55 | 6.07 | 0.13 | 0.13 | 18.18 | 8.19 | 20 | 12.91 | 34.55 | 6.07 | 26.08 | 194 | 0.039 |
| 30 | 12.90 | 34.55 | 6.07 | 0.14 | 0.10 | 16.72 | 8.15 | 30 | 12.90 | 34.55 | 6.07 | 26.08 | 194 | 0.059 |
| 50 | 11.95 | 34.47 | 6.02 | 0.11 | 0.08 | 20.36 | 8.20 | 50 | 11.89 | 34.46 | 6.02 | 26.21 | 181 | 0.097 |
| 底65 | 10.97 | 34.39 | 6.12 | 0.18 | 0.07 | 21.08 | 8.18 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 3 | 05.55 | 94 | 4 | 16 | S 4 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1020.8 | 15.2 | | Ci | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.63 | 34.59 | 6.17 | 0.24 | 0.08 | 13.91 | 8.15 | 0 | 13.63 | 34.59 | 6.17 | 25.97 | 205 | 0.000 |
| 10 | 13.52 | 34.60 | 6.07 | 0.14 | 0.07 | 12.35 | 8.15 | 10 | 13.52 | 34.60 | 6.07 | 26.00 | 202 | 0.020 |
| 20 | 13.35 | 34.59 | 6.10 | 0.14 | 0.12 | 12.36 | 8.15 | 20 | 13.35 | 34.59 | 6.10 | 26.02 | 199 | 0.040 |
| 30 | 13.10 | 34.54 | 5.92 | 0.20 | 0.12 | 10.91 | 8.10 | 30 | 13.10 | 34.54 | 5.92 | 26.04 | 198 | 0.060 |
| 50 | 12.30 | 34.55 | 6.00 | 0.15 | 0.09 | 13.81 | 8.10 | 50 | 12.30 | 34.55 | 6.00 | 26.20 | 182 | 0.099 |
| 75 | 11.06 | 34.32 | 6.02 | 0.24 | 0.14 | 13.31 | 8.12 | 75 | 11.06 | 34.32 | 6.02 | 26.31 | 172 | 0.143 |
| 底89 | 10.10 | 34.31 | 6.19 | 0.25 | 0.09 | 15.99 | 8.12 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 3 | 1710 | 110 | 5 | 15 | S 4 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 5 | 1020.7 | 14.9 | | As-Cs | 9 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$- P μg-at/L | $NO_2$- N μg-at/L | $SiO_3$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-D $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.89 | 34.60 | 6.10 | 0.27 | — | 17.45 | 8.15 | 0 | 13.89 | 34.67 | 5.84 | 25.99 | 202 | 0.000 |
| 9 | 13.80 | 34.60 | 5.97 | 0.22 | 0.11 | 16.72 | 8.15 | 10 | 13.86 | 34.69 | 5.78 | 26.00 | 202 | 0.020 |
| 17 | 13.74 | 34.62 | 5.84 | 0.22 | 0.12 | 17.45 | 8.12 | 20 | 13.90 | 34.69 | 5.75 | 25.99 | 203 | 0.041 |
| 25 | 13.62 | 34.57 | 5.97 | 0.22 | 0.05 | 13.90 | 8.15 | 30 | 13.84 | 34.69 | 5.76 | 25.99 | 202 | 0.061 |
| 47 | 12.78 | 34.56 | 5.97 | 0.17 | 0.09 | 24.72 | 8.15 | 50 | 13.82 | 34.69 | 5.66 | 26.00 | 201 | 0.101 |
| 75 | 12.55 | 34.55 | 5.82 | 0.22 | 0.14 | 15.27 | 8.12 | 75 | 13.82 | 34.67 | 5.65 | 25.99 | 203 | 0.152 |
| 100 | 11.96 | 34.43 | 5.94 | 0.45 | 0.13 | 15.27 | 8.18 | 100 | 13.81 | 34.69 | 5.63 | 26.01 | 201 | 0.203 |
| 底103 | 10.13 | 34.35 | 5.98 | 0.32 | 0.23 | 29.81 | 8.20 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 3 | 18.15 | 170 | | | S 4 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 5 | 1021.0 | 14.3 | — | Cs | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | Δ D dyn. m |
| 0 | 14.02 | 34.61 | 5.99 | 0.10 | 0.07 | 15.27 | 8.15 | 0 | 14.02 | 34.61 | 5.99 | 25.90 | 211 | 0.000 |
| 10 | 14.01 | 34.60 | 6.02 | 0.18 | 0.07 | 17.45 | 8.15 | 10 | 14.01 | 34.60 | 6.02 | 25.89 | 212 | 0.021 |
| 20 | 14.07 | 34.63 | 5.87 | 0.20 | 0.11 | 21.03 | 8.15 | 20 | 14.06 | 34.63 | 5.87 | 25.91 | 210 | 0.042 |
| 30 | 14.03 | — | 5.90 | 0.32 | 0.10 | 20.36 | 8.20 | 30 | 14.03 | 34.63 | 5.90 | 25.92 | 210 | 0.063 |
| 50 | 14.02 | 34.61 | 5.85 | 0.28 | 0.09 | 19.63 | 8.15 | 50 | 14.01 | 34.60 | 5.85 | 25.90 | 211 | 0.106 |
| 75 | 13.78 | 34.59 | 5.77 | 0.15 | 0.10 | 16.72 | 8.15 | 75 | 13.75 | 34.59 | 5.78 | 25.94 | 207 | 0.153 |
| 100 | 13.43 | 34.53 | 5.87 | 0.10 | 0.10 | 18.18 | 8.19 | 100 | 13.50 | 34.53 | 5.85 | 25.99 | 203 | 0.210 |
| 125 | 13.36 | 34.55 | 5.84 | 0.19 | 0.10 | 19.63 | 8.20 | 125 | 13.42 | 34.55 | 5.81 | 25.98 | 203 | 0.262 |
| 150 | 13.33 | 34.57 | 5.77 | 0.28 | 0.08 | 21.08 | 8.00 | 150 | 12.61 | 34.52 | 5.89 | 26.12 | 190 | 0.312 |
| 底153 | 12.31 | 34.51 | 5.94 | 0.20 | 0.07 | 21.81 | 7.95 | — | — | — | — | — | — | — |

8월(August) 조사선(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 12 | 1040 | 64 | 5 | 13 | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1013.5 | 18.4 | — | Ac | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | Δ D dyn. m |
| 0 | 25.19 | 32.35 | 5.00 | 0 | 0 | 37.08 | 8.10 | 0 | 25.19 | 32.35 | 5.00 | 21.31 | 649 | 0.000 |
| 10 | 19.73 | 33.67 | 4.76 | 0.04 | 0.03 | 34.17 | 8.10 | 10 | 19.73 | 33.67 | 4.76 | 23.84 | 407 | 0.053 |
| 20 | 18.40 | 33.95 | 4.43 | 0.18 | 0.17 | 41.44 | 8.12 | 20 | 18.40 | 33.95 | 4.43 | 24.39 | 355 | 0.091 |
| 30 | 17.12 | 34.10 | 4.31 | 0.15 | 0.22 | 44.35 | 8.15 | 30 | 17.12 | 34.10 | 4.31 | 24.82 | 314 | 0.124 |
| 50 | 15.16 | 34.47 | 4.14 | 0.20 | 0.40 | 31.26 | 7.93 | 50 | 15.16 | 34.47 | 4.14 | 25.55 | 244 | 0.181 |
| 底 | 15.01 | 34.52 | 4.97 | 0.34 | 0.07 | 50.89 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Wtter Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 12 | 1227 | 72 | 3 | 27 | WSW 1 | WSW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 1 | 1000.9 | 29.9 | | Cu | 3 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.26 | 32.17 | 4.43 | 0 | 0 | 45.80 | 8.19 | 0 | 27.26 | 32.17 | 4.43 | 20.53 | 724 | 0.000 |
| 10 | 23.96 | 32.37 | 4.98 | 0 | 0 | 35.62 | 8.12 | 10 | 23.96 | 32.37 | 4.98 | 21.69 | 613 | 0.067 |
| 20 | 19.56 | 32.78 | 5.64 | 0 | 0.01 | 30.53 | 8.21 | 20 | 19.56 | 32.78 | 5.64 | 23.20 | 468 | 0.121 |
| 30 | 14.84 | 33.71 | 4.89 | 0.27 | 0.14 | 28.35 | 8.00 | 30 | 17.21 | 33.71 | 4.89 | 24.49 | 345 | 0.162 |
| 50 | 17.21 | 34.37 | 4.05 | 0.28 | 0 | 0 | 7.93 | 50 | 14.84 | 34.37 | 4.05 | 25.54 | 245 | 0.221 |
| 底 | 14.91 | 34.39 | 4.14 | 0.27 | 0.39 | 0 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 12 | 1335 | 94 | 3 | 28 | SSE 1 | SSE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSE | 1 | 1000.5 | 29.9 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.25 | 32.01 | 4.79 | 0 | 0 | 36.35 | 8.20 | 0 | 28.25 | 32.01 | 4.79 | 20.09 | 766 | 0.000 |
| 10 | 24.99 | 32.13 | 4.97 | 0 | 0 | 39.26 | 8.24 | 10 | 24.99 | 32.13 | 4.97 | 21.20 | 660 | 0.071 |
| 20 | 21.18 | 32.91 | 5.12 | 0.07 | 0 | 18.90 | 8.20 | 20 | 21.18 | 32.91 | 5.12 | 22.88 | 499 | 0.129 |
| 30 | 18.24 | 33.05 | — | 0.07 | 0 | 42.89 | 8.20 | 30 | 18.24 | 33.05 | 4.91 | 23.74 | 416 | 0.175 |
| 50 | 14.67 | 34.25 | 4.25 | 0.41 | 0.12 | 13.81 | 8.10 | 50 | 14.67 | 34.25 | 4.25 | 25.49 | 250 | 0.242 |
| 75 | 14.38 | 34.41 | 3.98 | 0.25 | 0.08 | 39.99 | 8.10 | 75 | 14.43 | 34.41 | 3.98 | 25.67 | 233 | 0.303 |
| 底 | 14.59 | 34.40 | 4.14 | 0.13 | 0.06 | 45.80 | 8.07 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 12 | 1535 | 138 | 3 | 23 | WSW 1 | WSW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 1 | 1000.5 | 31.5 | | Cu | 3 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-St μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.39 | 32.11 | 4.25 | 0 | 0 | 10.91 | 8.30 | 0 | 28.39 | 32.11 | 4.25 | 20.12 | 763 | 0.000 |
| 10 | 27.64 | 32.15 | 4.33 | 0 | 0 | 12.36 | 8.35 | 10 | 27.64 | 32.15 | 4.33 | 20.39 | 737 | 0.075 |
| 20 | 26.88 | 32.22 | 4.52 | 0 | 0 | 13.09 | 8.35 | 20 | 26.88 | 32.22 | 4.52 | 20.69 | 709 | 0.147 |
| 30 | 25.49 | 33.07 | 4.33 | 0 | 0 | 21.81 | 8.40 | 30 | 25.49 | 33.07 | 4.33 | 21.75 | 607 | 0.213 |
| 50 | 15.16 | 33.46 | 5.41 | 0.07 | 0 | 3.64 | 8.36 | 50 | 15.16 | 33.46 | 5.41 | 24.77 | 318 | 0.306 |
| 75 | 14.45 | 34.36 | 4.14 | 0.29 | 0.04 | 14.54 | 8.30 | 75 | 14.45 | 34.36 | 4.14 | 25.62 | 238 | 0.376 |
| 100 | 14.47 | 34.40 | 4.02 | 0.27 | 0.10 | 34.90 | 8.15 | 100 | 14.47 | 34.40 | 4.02 | 25.65 | 235 | 0.436 |
| — | — | — | — | — | — | — | — | 125 | 13.24 | — | 4.04 | — | — | — |
| 底 | 12.40 | 34.47 | 4.08 | 0.27 | 0.02 | 54.53 | 8.15 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 12 | 1730 | 132 | 2 | 17 | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 999.8 | 29.6 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-6}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.27 | 31.64 | 4.40 | 0 | 0.03 | 33.44 | 8.20 | 0 | 28.27 | 31.64 | 4.40 | 19.81 | 793 | 0.000 |
| 10 | 25.40 | 31.97 | 5.06 | 0 | 0 | 25.45 | 8.23 | 10 | 25.40 | 31.97 | 5.06 | 20.96 | 683 | 0.074 |
| 20 | 20.71 | 32.66 | 4.66 | 0 | 0 | 34.17 | 8.10 | 20 | 20.71 | 32.66 | 4.22 | 22.81 | 505 | 0.133 |
| 30 | 17.24 | 33.47 | 4.80 | 0 | 0 | 31.99 | 8.10 | 30 | 17.24 | 33.67 | 4.80 | 24.30 | 363 | 0.177 |
| 50 | 14.99 | — | 5.53 | 0 | 0.12 | 28.35 | 8.10 | 50 | 14.99 | 34.04 | 5.53 | 25.26 | 272 | 0.241 |
| 75 | 14.79 | 34.08 | 3.88 | 0.17 | 0.04 | 31.99 | 8.15 | 75 | 14.79 | 34.08 | 3.88 | 25.32 | 266 | 0.308 |
| 104 | 14.75 | 34.43 | 3.86 | 0.14 | 0.17 | 53.07 | 8.18 | 100 | 14.75 | 34.43 | 3.86 | 25.60 | 239 | 0.372 |
| — | — | — | — | — | — | — | — | 125 | 14.75 | 34.46 | 3.98 | 25.63 | 237 | 0.432 |
| 底125 | 14.76 | 34.44 | 4.00 | 0.28 | 0.73 | 61.08 | 8.10 | — | — | — | — | — | — | — |

# 205선 해 양 관 측 성 적

## Oceanographic Data, Line 205

2월(Februavy) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 18 | 0730 | 54 | 4 | 11 | NW4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 4 | 1027.5 | 0.1 | 0 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μgat/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 8.89 | 34.37 | 6.22 | 0.24 | 0.18 | 21.08 | 8.25 | 0 | 8.89 | 34.37 | 6.22 | 26.66 | 139 | 0.000 |
| 10 | 8.96 | 34.34 | 6.33 | 0.21 | 0.12 | 20.36 | 8.32 | 10 | 8.96 | 34.34 | 6.23 | 26.63 | 142 | 0.014 |
| 20 | 8.90 | 34.34 | 6.31 | 0.28 | 0.13 | 45.80 | 8.30 | 20 | 8.90 | 34.34 | 6.31 | 26.64 | 141 | 0.028 |
| 30 | 8.89 | — | 6.33 | 0.39 | 0.06 | 42.89 | 8.28 | 30 | 8.89 | 34.34 | 6.33 | 26.64 | 141 | 0.042 |
| — | — | — | — | — | — | — | — | 50 | 8.91 | 34.35 | 6.33 | 26.64 | 140 | 0.071 |
| 底 | 8.91 | 34.35 | 6.33 | 0.34 | 0.10 | 33.44 | 8.27 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 18 | 0910 | 60 | 4 | 9 | NW4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 4 | 1027.3 | 1.2 | 1.1 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 8.87 | 34.12 | 6.22 | 0.17 | 0.14 | 51.62 | 8.38 | 0 | 8.87 | 34.12 | 6.22 | 26.47 | 157 | 0.000 |
| 10 | 8.87 | 34.11 | 6.28 | 0.20 | 0.12 | 39.99 | 8.40 | 10 | 8.87 | 34.11 | 6.28 | 26.46 | 158 | 0.016 |
| 20 | 9.05 | 34.20 | 6.43 | 0.24 | 0.09 | 34.17 | 8.38 | 20 | 9.05 | 34.20 | 6.43 | 26.53 | 154 | 0.039 |
| 30 | 8.75 | 34.19 | 6.48 | 0.24 | 0.10 | 50.16 | 8.38 | 30 | 8.75 | 34.19 | 6.48 | 26.54 | 150 | 0.047 |
| — | — | — | — | — | — | — | — | 50 | 8.78 | 34.20 | 6.45 | 26.55 | 150 | 0.077 |
| 底 | 8.92 | 34.21 | 6.41 | 0.32 | 0.10 | 59.61 | 8.21 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 18 | 1540 | 85 | 5 | 8 | NNW4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amonnt | |
| NNW | 4 | 1028.5 | 2.1 | 2.0 | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-6}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.38 | 34.47 | 6.22 | 0.20 | 0.15 | 54.53 | 8.24 | 0 | 11.83 | 34.47 | 6.22 | 26.23 | 180 | 0.000 |
| 10 | 11.80 | 34.47 | 6.28 | 0.11 | 0.14 | 35.62 | 8.20 | 10 | 11.80 | 34.47 | 6.28 | 26.23 | 179 | 0.018 |
| 20 | 11.40 | 34.41 | 6.22 | 0.39 | 0.14 | 36.35 | 8.15 | 20 | 11.40 | 34.41 | 6.22 | 26.26 | 177 | 0.036 |
| 30 | 9.94 | 34.21 | 6.53 | 0.42 | 0.10 | 36.35 | 8.10 | 30 | 9.94 | 34.21 | 6.53 | 26.37 | 167 | 0.053 |
| 50 | 8.30 | 34.02 | 6.22 | 0.35 | 0.04 | 27.63 | 8.15 | 50 | 8.30 | 34.02 | 6.22 | 26.48 | 156 | 00.85 |
| 75 | — | — | — | — | — | — | — | 75 | 7.60 | 34.46 | — | 26.93 | 113 | 0.119 |
| 底80 | 7.64 | 34.64 | — | 0.36 | 0.05 | 32.72 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Deph | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 18 | 1240 | 85 | 5 | 9 | NNW3 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 3 | 1027.1 | 4.2 | 4.0 | Ci | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-6}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.51 | 34.59 | 6.04 | 0.34 | 0.27 | 32.72 | 8.20 | 0 | 13.51 | 34.59 | 6.04 | 25.99 | 202 | 0.000 |
| 10 | 13.65 | 34.59 | 6.02 | 0.38 | 0.33 | 28.35 | 8.27 | 10 | 13.65 | 34.59 | 6.02 | 25.96 | 205 | 0.020 |
| 20 | 13.70 | 34.59 | 5.96 | 0.17 | 0.30 | 29.28 | 8.26 | 20 | 13.70 | 34.59 | 5.96 | 25.95 | 206 | 0.041 |
| 30 | 13.64 | 34.58 | 5.92 | 0.14 | 0.30 | 39.99 | 8.29 | 30 | 13.64 | 34.58 | 5.92 | 25.96 | 206 | 0.062 |
| 50 | 12.86 | 34.55 | 5.95 | 0.32 | 0.20 | 51.62 | 8.33 | 50 | 12.86 | 34.55 | 5.95 | 26.09 | 193 | 0.102 |
| 底 | 12.55 | 34.53 | 5.91 | 0.35 | 0.23 | 50.89 | 8.35 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 18 | 1445 | 116 | 5 | 14 | N4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 4 | 1026.6 | 4.9 | 4.8 | Cu | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 14.35 | 34.64 | 5.09 | 0.21 | 0.40 | 55.98 | 8.42 | 0 | 14.35 | 34.64 | 5.09 | 25.85 | 215 | 0.000 |
| 10 | 14.37 | 34.64 | 5.97 | 0.21 | 0.37 | 35.62 | 8.40 | 10 | 14.37 | 34.64 | 5.97 | 25.85 | 216 | 0.022 |
| 20 | 14.36 | 34.64 | 5.90 | 0.22 | — | 34.90 | 8.32 | 20 | 14.36 | 34.64 | 5.90 | 25.85 | 216 | 0.043 |
| 30 | 14.35 | 34.64 | 5.80 | 0.28 | 0.36 | 25.45 | 8.24 | 30 | 14.35 | 34.64 | 5.80 | 25.85 | 215 | 0.065 |
| 50 | 14.36 | 34.65 | 5.90 | 0.28 | 0.35 | 39.26 | 8.34 | 50 | 14.36 | 34.65 | 5.90 | 25.86 | 215 | 0.108 |
| 75 | 14.38 | 34.66 | 5.87 | 0.25 | 0.37 | 45.80 | 8.31 | 75 | 14.38 | 34.66 | 5.87 | 25.86 | 215 | 0.162 |
| 100 | 14.23 | 34.66 | 5.87 | 0.29 | 0.24 | 42.17 | 8.32 | 100 | 14.23 | 34.66 | 5.87 | 25.89 | 212 | 0.216 |
| 底110 | 14.39 | 34.87 | 5.83 | 0.35 | 0.20 | 26.89 | 8.30 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 18 | 1805 | 118 | | | 4 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | 1025.5 | 5.9 | 4.9 | Ci | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 14.40 | 34.68 | 5.87 | 0.21 | 0.35 | 25.45 | 8.28 | 0 | 14.40 | 34.68 | 5.87 | 25.87 | 214 | 0.000 |
| 10 | 14.45 | 34.67 | 5.69 | 0.42 | 0.37 | 21.81 | 8.30 | 10 | 14.45 | 34.67 | 5.69 | 25.86 | 215 | 0.021 |
| 20 | 14.46 | 34.67 | 5.77 | 0.36 | 0.39 | 36.35 | 8.23 | 20 | 14.46 | 34.67 | 5.77 | 25.85 | 216 | 0.043 |
| 30 | 14.51 | 34.67 | 5.77 | 0.28 | 0.20 | 37.08 | 8.25 | 30 | 14.51 | 34.67 | 5.77 | 25.84 | 217 | 0.065 |
| 50 | 14.48 | 34.67 | 5.71 | 0.31 | — | — | 8.30 | 50 | 14.48 | 34.67 | 5.71 | 25.85 | 216 | 0.108 |
| 75 | 14.44 | 34.67 | 5.77 | 0.29 | 0.18 | 46.53 | 8.30 | 75 | 14.44 | 34.67 | 5.77 | 25.86 | 215 | 0.163 |
| 100 | 14.45 | 34.67 | 5.67 | 0.31 | 0.17 | 38.53 | 8.20 | 100 | 14.45 | 34.67 | 5.67 | 25.86 | 215 | 0.217 |
| 底115 | 14.46 | 34.67 | 5.69 | 0.35 | 0.16 | 48.71 | 8.22 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 18 | 2000 | 140 | | | N 4 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 4 | 1026.0 | 2.0 | 1.7 | Cc | 4 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 14.28 | 34.66 | 5.77 | 0.28 | 0.41 | 35.62 | 8.30 | 0 | 14.28 | 34.66 | 5.77 | 25.88 | 213 | 0.000 |
| 10 | 14.28 | 34.67 | 5.88 | 0.46 | 0.40 | 26.89 | 8.28 | 10 | 14.28 | 34.67 | 5.88 | 25.89 | 212 | 0.021 |
| 20 | 14.28 | 34.66 | 5.89 | 0.42 | 0.44 | 39.99 | 8.30 | 20 | 14.28 | 34.66 | 5.89 | 25.88 | 213 | 0.043 |
| 30 | 14.32 | 34.66 | 5.87 | 0.43 | 0.40 | 42.17 | 8.32 | 30 | 14.32 | 34.66 | 5.87 | 25.88 | 213 | 0.064 |
| 50 | 14.30 | 34.66 | 5.92 | 0.49 | 0.36 | 44.35 | 8.41 | 50 | 14.30 | 34.66 | 5.92 | 25.88 | 213 | 0.107 |
| 75 | 14.30 | 34.67 | 5.86 | 0.36 | 0.38 | 42.89 | 8.30 | 75 | 14.29 | 34.67 | 5.86 | 25.89 | 212 | 0.160 |
| 100 | 14.28 | 34.66 | 5.81 | 0.34 | 0.22 | 45.80 | 8.23 | 100 | 14.27 | 34.65 | 5.80 | 25.88 | 213 | 0.214 |
| 125 | 14.23 | — | 5.78 | 0.39 | 0.11 | 24.72 | 8.29 | 125 | 14.28 | 34.65 | 5.78 | 25.88 | 213 | 0.268 |
| 139 | 14.28 | 34.65 | 5.79 | 0.39 | 0.18 | 19.63 | 8.29 | — | — | — | — | — | — | — |

8월 (August) 조사선 (Han Ra San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 26 | 0425 | 58 | | | NNE. 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1010.4 | 25.7 | | As | 6 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.85 | 33.00 | 3.67 | 0.01 | 0.03 | 53.07 | 8.32 | 0 | 25.85 | 33.00 | 3.67 | 21.60 | 622 | 0.000 |
| 10 | 22.51 | 33.19 | 4.63 | 0.04 | 0 | 34.17 | 8.37 | 10 | 22.51 | 33.19 | 4.63 | 22.73 | 514 | 0.057 |
| 20 | 19.62 | 33.34 | 4.31 | 0 | 0 | 52.34 | 8.30 | 20 | 19.62 | 33.34 | 4.31 | 23.62 | 428 | 0.104 |
| 30 | 15.32 | 33.37 | 4.34 | 0.18 | 0.02 | 35.62 | 8.18 | 30 | 15.32 | 33.37 | 4.34 | 24.67 | 328 | 0.142 |
| 56 | 14.55 | 33.27 | 3.74 | 0.17 | 0 | 43.62 | 8.20 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 26 | 0250 | 60 | | | NNE. 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1010.8 | 26.3 | | As | 6 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.99 | 32.88 | 3.48 | 0 | 0 | 69.07 | 8.22 | 0 | 25.99 | 32.88 | 3.48 | 22.46 | 635 | 0.000 |
| 10 | 24.28 | 32.81 | 4.44 | 0 | 0 | 77.79 | 8.30 | 10 | 24.28 | 32.81 | 4.44 | 21.92 | 590 | 0.061 |
| 20 | 20.74 | 33.04 | 4.91 | 0 | 0 | 47.26 | 8.30 | 20 | 20.74 | 33.04 | 4.91 | 23.10 | 478 | 0.115 |
| 30 | 16.05 | 33.57 | 5.09 | 0.13 | 0 | 46.53 | 8.28 | 30 | 16.05 | 33.57 | 5.09 | 24.65 | 330 | 0.155 |
| 55 | 14.63 | 34.36 | 4.57 | 0.28 | 0.04 | 53.80 | 8.18 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 26 | 0050 | 80 | | | NNE. 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1010.5 | 28.0 | | As | 6 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$ P μg-at/L | $NO_3$- N μg-at/L | $SiO_2$ Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.08 | 32.61 | 4.70 | 0 | 0 | 29.08 | 8.30 | 0 | 29.08 | 32.61 | 4.70 | 20.27 | 749 | 0.000 |
| 10 | 28.10 | 32.78 | 4.44 | 0 | 0.03 | 23.99 | 8.25 | 10 | 28.10 | 32.78 | 4.44 | 20.72 | 706 | 0.073 |
| 20 | 21.96 | 32.99 | 4.33 | 0 | 0 | 19.63 | 8.30 | 20 | 21.96 | 32.99 | 4.33 | 22.72 | 514 | 0.134 |
| 30 | 17.83 | 33.18 | 5.49 | 0.04 | 0 | 21.81 | 8.28 | 30 | 17.83 | 33.18 | 5.49 | 23.94 | 398 | 0.180 |
| 50 | 14.70 | 34.35 | 3.95 | 0.45 | 0.02 | 34.17 | 8.20 | 50 | 14.70 | 34.35 | 3.95 | 22.56 | 244 | 0.244 |
| — | — | — | — | — | 0.03 | 32.72 | — | 75 | — | — | | 25.71 | 229 | 0.303 |
| 75 | 14.70 | 34.55 | 4.59 | 0.49 | 0.03 | — | 8.05 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 25 | 2215 | 105 | | | NNE. 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1010.4 | 28.9 | | As | 6 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 29.91 | 32.32 | 4.23 | 0 | 0 | 21.81 | 7.96 | 0 | 29.91 | 32.32 | 4.23 | 19.77 | 797 | 0.000 |
| 10 | 29.67 | 32.41 | 4.25 | 0 | 0 | 14.54 | 8.11 | 10 | 29.67 | 32.41 | 4.25 | 19.92 | 783 | 0.079 |
| 20 | 29.67 | 32.44 | 4.23 | 0 | 0 | 19.63 | 8.35 | 20 | 29.67 | 32.44 | 4.23 | 19.94 | 781 | 0.157 |
| 30 | 26.25 | 32.91 | 4.80 | 0 | 0 | 21.81 | 8.36 | 30 | 26.25 | 32.91 | 4.80 | 21.40 | 641 | 0.228 |
| 50 | 18.18 | 34.38 | 5.57 | 0 | 0 | 25.45 | 8.35 | 50 | 18.18 | 34.38 | 5.57 | 24.77 | 318 | 0.325 |
| 75 | 15.08 | 34.39 | 4.06 | 0.18 | 0 | 26.89 | 8.28 | 75 | 15.08 | 34.39 | 4.06 | 25.50 | 249 | 0.336 |
| 100 | 14.60 | 34.47 | 3.86 | 0.55 | 0.05 | 34.90 | 8.21 | 100 | 14.60 | 34.47 | 3.86 | 25.66 | 234 | 0.457 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 25 | 1930 | 120 | | | NNE. 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 10102.2 | 29.6 | | Cc | 6 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt g/L | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 30.34 | 32.37 | 4.23 | 0 | 0 | 23.36 | 8.32 | 0 | 30.34 | 32.37 | 4.23 | 19.66 | 807 | 0.000 |
| 10 | 29.73 | 32.40 | 4.14 | 0 | 0 | 20.36 | 8.40 | 10 | 29.73 | 32.40 | 4.14 | 19.89 | 785 | 0.080 |
| 20 | 28.84 | 32.62 | 4.51 | 0 | 0 | 19.90 | 8.48 | 20 | 28.84 | 32.62 | 4.51 | 20.36 | 741 | 0.156 |
| 30 | 25.47 | 33.83 | 5.08 | 0 | 0 | 22.54 | 8.40 | 30 | 25.47 | 33.83 | 5.08 | 22.34 | 551 | 0.221 |
| 50 | 18.79 | 34.56 | 4.34 | 0.24 | 0 | 26.54 | 8.25 | 50 | 18.79 | 34.56 | 4.34 | 24.76 | 320 | 0.308 |
| 75 | 17.73 | 34.45 | 3.69 | 0.13 | 0 | 26.89 | 8.28 | 75 | 17.73 | 34.45 | 3.69 | 24.94 | 303 | 0.374 |
| 100 | 15.48 | 34.59 | 3.93 | 0.13 | 0.05 | 28.35 | 8.20 | 100 | 15.48 | 34.59 | 3.93 | 25.57 | 243 | 0.465 |
| 177 | 15.02 | 34.30 | 3.59 | 0.50 | 0 | 26.89 | 8.24 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 25 | 1650 | 160 | 2 | 20 | NNE. 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1010.0 | 30.4 | | Ci | 4 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt g/L | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 30.44 | 32.71 | 4.19 | 0 | 0 | 8.72 | 8.28 | 0 | 30.44 | 32.71 | 4.19 | 19.88 | 787 | 0.000 |
| 10 | 29.79 | 32.72 | 4.24 | — | — | — | 8.35 | 10 | 29.79 | 32.72 | 4.24 | 20.11 | 764 | 0.078 |
| 20 | 29.74 | 32.94 | 4.24 | 0 | 0 | 48.44 | 8.32 | 20 | 29.74 | 32.94 | 4.24 | 20.30 | 747 | 0.153 |
| 30 | 28.04 | 33.68 | 4.70 | 0 | 0 | 53.07 | 8.42 | 30 | 28.04 | 33.68 | 4.70 | 11.41 | 639 | 0.223 |
| 50 | 22.38 | 34.19 | 4.70 | 0.08 | 0 | 21.81 | 8.35 | 50 | 22.38 | 34.19 | 4.70 | 23.51 | 438 | 0.331 |
| 75 | 17.86 | 34.55 | 3.26 | 0.18 | 0.05 | 35.62 | 8.23 | 75 | 17.86 | 34.55 | 3.26 | 24.98 | 299 | 0.423 |
| 100 | 17.06 | 34.56 | 3.36 | 0.29 | 0.13 | 77.06 | — | 100 | 17.06 | 34.56 | 3.36 | 25.18 | 280 | 0.496 |
| 125 | 16.08 | 34.63 | 3.57 | 0.39 | 0.06 | 34.17 | 8.23 | 125 | 16.08 | 34.63 | 3.57 | 25.47 | 252 | 0.564 |
| 155 | 13.83 | 34.58 | 3.76 | 0.71 | 0.01 | 39.99 | 8.24 | 150 | 14.28 | 34.60 | 3.73 | 25.84 | 217 | 0.623 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 25 | 1400 | 160 | 2 | 30 | NNE. 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1010.4 | 30.6 | | Cc | 4 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt g/L | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 30.53 | 32.82 | 4.14 | 0.04 | 0 | 18.90 | 8.38 | 0 | 30.53 | 32.82 | 4.14 | 19.93 | 781 | 0.000 |
| 10 | 29.82 | 32.86 | 4.51 | 0.04 | 0.01 | 18.18 | 8.28 | 10 | 29.82 | 32.86 | 4.51 | 20.21 | 755 | 0.077 |
| 20 | 29.70 | 33.28 | 4.33 | 0.08 | 0.02 | 77.79 | 8.28 | 20 | 29.70 | 33.28 | 4.33 | 20.56 | 721 | 0.151 |
| 30 | 29.43 | 33.45 | 4.42 | 0.20 | 0 | 20.36 | 8.30 | 30 | 29.43 | 33.45 | 4.42 | 20.78 | 700 | 0.222 |
| 50 | 28.99 | 33.65 | 4.51 | 0.34 | 0 | 13.51 | 8.00 | 50 | 28.99 | 33.05 | 4.51 | 20.66 | 712 | 0.363 |
| 75 | 27.98 | 34.07 | 5.08 | 0.56 | 0 | 17.45 | 8.15 | 75 | 27.98 | 34.07 | 5.08 | 21.72 | 610 | 0.529 |
| 100 | 18.68 | 34.37 | 3.60 | 0.11 | 0.02 | 61.80 | 8.30 | 100 | 18.68 | 34.37 | 3.60 | 24.64 | 331 | 0.648 |
| 125 | 17.70 | 34.61 | 3.86 | 0.27 | 0.05 | 31.26 | 8.15 | 125 | 17.70 | 34.61 | 3.86 | 25.07 | 270 | 0.726 |
| 150 | 15.14 | 34.62 | 3.95 | 0.37 | 0.02 | 34.90 | — | 150 | 15.67 | 34.64 | 3.95 | 25.56 | 243 | 00.73 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 25 | 1100 | 164 | 2 | 26 | NNE. 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1010.9 | 31.2 | | Cu | 3 | Bc |

| OBSERVED | | | | | | | | INTEROPLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 29.86 | 33.09 | 4.14 | 0.01 | — | 50.16 | 8.35 | 0 | 29.86 | 33.09 | 4.14 | 20.36 | 740 | 0.000 |
| 10 | 29.63 | 33.10 | 4.33 | 0.08 | 0.05 | 59.61 | — | 10 | 29.63 | 33.10 | 4.33 | 20.45 | 732 | 0.074 |
| 20 | 29.61 | 33.18 | 4.14 | 0 | 0.10 | 11.63 | 8.43 | 20 | 29.61 | 33.18 | 4.14 | 20.51 | 726 | 0.147 |
| 30 | 28.34 | 33.42 | 4.73 | 0 | 0.04 | 23.26 | 8.32 | 30 | 28.34 | 33.42 | 4.73 | 21.12 | 667 | 0.216 |
| 50 | 23.85 | 34.38 | 3.76 | 0.01 | 0.04 | 18.18 | 8.35 | 50 | 23.85 | 34.38 | 3.76 | 23.24 | 465 | 0.330 |
| 75 | 19.14 | 34.38 | 3.76 | 0.34 | 0.32 | 30.53 | 8.65 | 75 | 19.14 | 34.38 | 3.76 | 24.53 | 341 | 0.431 |
| 100 | 17.73 | 34.65 | 3.73 | 0.22 | 0.06 | 58.16 | 8.37 | 100 | 17.73 | 34.65 | 3.73 | 25.09 | 288 | 0.510 |
| 125 | 16.24 | 34.62 | 3.97 | 0.38 | 0.02 | 29.81 | 8.10 | 125 | 16.24 | 34.62 | 3.97 | 25.42 | 257 | 0.579 |
| 150 | 15.04 | 34.59 | 3.59 | 0.35 | 0 | 34.17 | 8.20 | 150 | 15.04 | 34.59 | 3.95 | 25.66 | 234 | 0.642 |
| 161 | 14.57 | 34.60 | 3.87 | 0.32 | 0.02 | 43.62 | 8.20 | — | — | — | — | — | — | — |

# 204선 해 양 관 측 성 적

## Oceanographic Data Line 204

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 3 | 1045 | 38 | 5 | 8 | S 3 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | 1024.2 | 11.9 | | Cu | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $Si_2O$-Si pg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn.m |
| 0 | 8.62 | 34.21 | 6.33 | 0.18 | 0.06 | 27.63 | 8.13 | 0 | 8.62 | 34.21 | 6.33 | 26.58 | 147 | 0.000 |
| 10 | 8.40 | 34.24 | 6.18 | 0.20 | 0.06 | 28.35 | 8.20 | 10 | 8.40 | 34.24 | 6.18 | 26.64 | 141 | 0.014 |
| 20 | 7.90 | 34.25 | 6.17 | 0.15 | 0.09 | 24.72 | 8.15 | 20 | 7.90 | 34.25 | 6.17 | 26.72 | 138 | 0.028 |
| 30 | 7.66 | 34.22 | 6.07 | 0.21 | 0.09 | 26.89 | 8.15 | 30 | 7.66 | 34.22 | 6.07 | 26.73 | 132 | 0.041 |
| 35 | 7.66 | 34.22 | 5.97 | 0.18 | 0.07 | 25.45 | 8.18 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 3 | 0940 | 28 | 7 | 4 | SE 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amnunt | |
| SE | 4 | 1024.1 | 11.7 | | Cu-Ci | 3 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $Si_2O$-SI μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D- T $10^{-6}$ $cm^3/g$ | △D dyn. m |
| 0 | 7.72 | 34.08 | 6.02 | 0.27 | 0.12 | 28.35 | 8.08 | 0 | 7.72 | 34.08 | 6.02 | 26.61 | 143 | 0.000 |
| 10 | 6.91 | 34.12 | 6.43 | 0.27 | 0.13 | 23.26 | 8.11 | 10 | 6.91 | 34.12 | 6.43 | 26.76 | 129 | 0.014 |
| 20 | 6.72 | 34.10 | 6.36 | 0.28 | 0.10 | 21.81 | 8.10 | 20 | 6.72 | 34.10 | 6.36 | 26.27 | 129 | 0.027 |
| 26 | 6.72 | 34.09 | 6.33 | 0.21 | 0.09 | 19.63 | 8.13 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 3 | 0830 | 45 | 5 | 8 | SE 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1026.0 | 13.6 | 12.7 | Cc | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CACLULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ⌐D dyn. m |
| 0 | 12.05 | 34.55 | 5.92 | 0.14 | 0.12 | 20.36 | 8.11 | 0 | 12.05 | 34.55 | 5.92 | 26.25 | 178 | 0.000 |
| 10 | 12.04 | 34.56 | 5.92 | 0.34 | 0.12 | 21.08 | 8.0 | 510 | 12.04 | 34.56 | 5.92 | 26.26 | 177 | 0.018 |
| 20 | 11.87 | 34.55 | 6.02 | 0.24 | 0.13 | 18.90 | 8.03 | 20 | 11.87 | 34.55 | 6.02 | 26.23 | 175 | 0.035 |
| 30 | 11.92 | 34.53 | 6.12 | 0.20 | 0.09 | 23.35 | 8.05 | 30 | 11.92 | 34.53 | 6.12 | 26.26 | 177 | 0.053 |
| 42 | 11.77 | 34.07 | — | 0.25 | 0.06 | 26.17 | 8.09 | — | -- | — | -- | - | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 2 | 1915 | 75 | | | S 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | 1026.0 | 13.6 | 12.7 | Ci | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | $\frac{dt}{10^{-5}}$ $cm^3/g$ | △D dyn. m |
| 0 | 14.72 | 34.62 | 5.92 | 0.24 | 0.35 | 22.54 | 8.12 | 0 | 14.72 | 34.62 | 5.92 | 25.76 | 225 | 0.000 |
| 10 | 14.73 | 34.64 | 5.82 | 0.21 | 0.10 | 10.54 | 8.15 | 10 | 14.73 | 34.64 | 5.82 | 25.77 | 223 | 0.022 |
| 20 | 14.24 | 34.56 | 5.82 | 0.18 | 0.07 | 19.63 | 8.15 | 20 | 14.24 | 34.56 | 5.82 | 25.82 | 219 | 0.045 |
| 30 | 14.05 | 34.56 | 5.92 | 0.17 | 0.09 | 21.08 | 8.13 | 30 | 14.05 | 34.56 | 5.92 | 25.86 | 215 | 0.066 |
| 50 | 13.53 | 34.54 | 5.77 | 0.24 | 0.06 | 21.08 | 8.15 | 50 | 13.53 | 34.54 | 5.77 | 25.95 | 207 | 0.109 |
| 70 | 13.07 | 34.54 | 6.02 | 0.18 | 0.30 | 21.08 | 8.12 | — | — | — | — | — | -- | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 2 | 1810 | 90 | 4 | 8 | SSW 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 2 | 1026.0 | 13.8 | 13.4 | Ci | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 14.78 | 34.62 | 5.92 | 0.17 | 0.15 | 19.63 | 7.90 | 0 | 14.78 | 34.62 | 5.92 | 25.75 | 226 | 0.000 |
| 10 | 14.77 | 34.63 | 5.92 | 0.18 | 0.14 | 21.08 | 8.00 | 10 | 14.69 | 34.62 | 5.86 | 25.76 | 224 | 0.022 |
| 20 | 14.00 | 34.54 | 5.41 | 0.11 | 0.07 | 26.08 | 7.92 | 20 | 13.06 | 34.53 | 5.42 | 25.86 | 215 | 0.045 |
| 30 | 13.80 | 34.54 | 5.71 | 0.20 | 0.06 | 34.17 | 7.98 | 30 | 13.77 | 34.53 | 5.73 | 25.90 | 211 | 0.066 |
| 50 | 13.31 | 34.52 | 5.92 | 0.14 | 0.08 | 31.99 | 8.00 | 50 | 13.27 | 34.51 | 5.90 | 25.98 | 203 | 0.108 |
| 75 | 12.62 | 34.50 | 5.66 | 0.17 | 0.14 | 29.81 | 8.02 | 75 | 12.61 | 34.50 | 5.67 | 26.10 | 192 | 0.157 |
| 85 | 12.64 | 34.50 | 5.92 | 0.22 | 0.17 | 30.53 | 8.12 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 2 | 1620 | 128 | 4 | 7 | SSW 3 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 3 | 1025.7 | 9.6 | 9.1 | Ci | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 14.44 | 34.59 | 5.61 | 0.18 | 0.12 | 16.00 | 8.03 | 0 | 14.44 | 34.59 | 5.61 | 25.80 | 221 | 0.000 |
| 9 | 14.40 | 34.60 | 5.61 | 0.14 | 0.11 | 27.63 | 8.05 | 10 | 14.38 | 34.60 | 5.61 | 25.82 | 219 | 0.022 |
| 19 | 14.18 | 34.59 | 5.61 | 0.13 | 0.09 | 18.90 | 8.10 | 20 | 14.15 | 34.58 | 5.63 | 25.86 | 215 | 0.044 |
| 29 | 13.88 | 34.57 | 5.82 | 0.21 | 0.08 | 23.26 | 8.20 | 30 | 13.85 | 34.56 | 5.83 | 25.90 | 211 | 0.065 |
| 48 | 13.49 | 34.54 | 5.82 | 0.25 | 0.07 | 24.72 | 7.86 | 50 | 13.47 | 34.53 | 5.81 | 25.96 | 206 | 0.107 |
| 93 | 13.03 | 34.52 | 5.71 | 0.22 | 0.08 | 21.08 | 7.80 | 75 | 13.25 | 34.52 | 5.71 | 26.00 | 202 | 0.158 |
| 95 | 12.85 | 34.51 | 5.71 | 0.21 | 0.10 | 35.62 | 8.06 | 100 | 12.84 | 34.51 | 5.77 | 26.06 | 196 | 0.209 |
| 112 | 12.46 | 34.49 | 5.92 | 0.43 | 0.13 | 34.17 | 7.96 | — | — | — | — | — | — | — |

9월(September) 조사선(Han Ra San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 3 | 1630 | 44 | 4 | 12 | NNE. 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1005.7 | 26.5 | | As | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.31 | 32.42 | 5.00 | 0.81 | 0.03 | 25.45 | — | 0 | 25.34 | 32.42 | 5.00 | 21.31 | 649 | 0.000 |
| 10 | 23.00 | 32.44 | 5.43 | 0.41 | 0.09 | 63.43 | — | 10 | 23.00 | 32.44 | 5.48 | 22.02 | 581 | 0.062 |
| 20 | 19.08 | 32.20 | 5.27 | 0.13 | 0.09 | 37.80 | — | 20 | 19.08 | 32.20 | 5.27 | 22.89 | 498 | 0.116 |
| 30 | 15.73 | 33.80 | 4.98 | 0.04 | 0.07 | 44.35 | — | 30 | 15.73 | 33.80 | 4.98 | 24.90 | 306 | 0.156 |
| 41 | 15.44 | 33.60 | 5.19 | 0.24 | 0.14 | 54.53 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 3 | 1910 | 34 | 4 | 11 | NNE. 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1006.5 | 26.1 | | As | 7 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg•at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg•at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 23.36 | 32.56 | 5.17 | 0 | 0.11 | 47.26 | — | 0 | 23.36 | 32.56 | 5.17 | 22.29 | 555 | 0.000 |
| 10 | 21.48 | 33.12 | 5.55 | 0 | 0.08 | 36.35 | — | 10 | 21.48 | 32.12 | 5.55 | 22.96 | 491 | 0.052 |
| 20 | 20.35 | — | 4.80 | 0.07 | 0.05 | 57.07 | — | 20 | 20.35 | — | 4.80 | 23.50 | 440 | 0.099 |
| 30 | 17.33 | 33.49 | 4.56 | 0.21 | 0.16 | 61.07 | — | 30 | 17.33 | 33.49 | 4.56 | 24.30 | 363 | 0.139 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 3 | 2100 | 44 | | | NNE. 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1006.5 | 25.7 | | As | 6 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T °C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T °C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.22 | 31.80 | 4.70 | — | — | — | — | 0 | 26.22 | 31.80 | 4.70 | 20.58 | 719 | 0.000 |
| 10 | 25.01 | 32.09 | 4.91 | 0.03 | 0.04 | 13.09 | — | 10 | 25.01 | 32.29 | 4.91 | 21.17 | 663 | 0.069 |
| 20 | 24.24 | 32.26 | 5.08 | 0 | — | 25.45 | — | 20 | 24.24 | 32.26 | 5.08 | 21.53 | 628 | 0.134 |
| 30 | 17.26 | 33.41 | 6.21 | 0.00 | 0.02 | 33.53 | | 30 | 17.26 | 33.41 | 6.21 | 24.25 | 368 | 0.184 |
| 41 | 14.96 | 33.90 | 4.70 | 0.01 | 0.07 | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 4 | 0900 | 80 | 4 | 14 | 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1010.1 | 26.6 | | Ns | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T °C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T °C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.59 | 32.46 | 4.50 | 0 | 0.03 | 36.35 | — | 0 | 27.59 | 32.46 | 4.50 | 20.64 | 713 | 0.000 |
| 10 | 27.41 | 32.77 | 4.61 | 0 | 0.04 | 61.80 | — | 10 | 27.41 | 32.77 | 4.61 | 20.93 | 686 | 0.070 |
| 20 | 17.13 | 32.34 | 5.85 | 0 | 0.14 | 70.52 | — | 20 | 17.13 | 32.34 | 5.85 | 20.70 | 708 | 0.140 |
| 30 | 16.50 | 32.48 | 6.10 | 0 | 0.04 | 60.34 | — | 30 | 16.50 | 32.48 | 6.10 | 23.72 | 419 | 0.196 |
| 50 | 15.10 | 34.01 | 4.45 | 0.29 | 0.08 | 58.16 | — | 50 | 15.10 | 34.01 | 4.45 | 25.21 | 277 | 0.266 |
| 75 | 13.99 | 34.17 | 4.40 | 0.02 | 0.06 | 62.52 | - | 75 | 13.99 | 34.17 | 4.40 | 25.57 | 243 | 0.331 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 4 | 1045 | 100 | 4 | 15 | 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1010.5 | 25.7 | | Ns | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.29 | 31.34 | 4.25 | 0.06 | 0.06 | 39.00 | — | 0 | 27.29 | 31.34 | 4.25 | 19.90 | 785 | 0.000 |
| 10 | 26.51 | 32.03 | 4.88 | 0 | 0.05 | 51.62 | — | 10 | 26.51 | 32.03 | 4.88 | 20.66 | 711 | 0.075 |
| 20 | 26.29 | 33.34 | 5.38 | 0 | 0.06 | 43.62 | — | 20 | 26.29 | 33.34 | 5.38 | 21.71 | 610 | 0.141 |
| 30 | 17.83 | 34.59 | 3.67 | 0 | 0.07 | 34.17 | — | 30 | 17.83 | 34.59 | 3.67 | 25.02 | 295 | 0.186 |
| 50 | 17.57 | 34.61 | 3.31 | 0 | 0.07 | 58.16 | — | 50 | 17.57 | 34.61 | 3.31 | 25.10 | 288 | 0.245 |
| 75 | 15.05 | 34.45 | 4.26 | 0.18 | 0.09 | 45.80 | — | 75 | 15.05 | 34.45 | 4.26 | 25.56 | 244 | 0.312 |
| 95 | 14.14 | 34.44 | 3.50 | 0 | 0.06 | 33.44 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 4 | 1240 | 129 | 4 | 10 | NE. 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1010.5 | 27.3 | | As | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.24 | 31.46 | 4.36 | 0 | 0.03 | 70.52 | — | 0 | 27.24 | 31.46 | 4.36 | 19.97 | 778 | 0.000 |
| 10 | 25.30 | 32.56 | 4.89 | 0 | 0.07 | 47.98 | — | 10 | 25.30 | 32.56 | 4.89 | 21.43 | 637 | 0.072 |
| 20 | 23.55 | 33.08 | 5.16 | 0 | 0.03 | 53.07 | — | 20 | 23.55 | 33.08 | 5.16 | 22.34 | 550 | 0.130 |
| 30 | 21.73 | 34.07 | 4.90 | 0.01 | 0.04 | 44.35 | — | 30 | 21.73 | 34.07 | 4.90 | 23.61 | 430 | 0.179 |
| 50 | 15.22 | 34.34 | 4.04 | 0.32 | 0.08 | 54.53 | — | 50 | 15.22 | 34.34 | 4.04 | 24.66 | 329 | 0.255 |
| 75 | 14.67 | 34.48 | 3.79 | 0.07 | 0.14 | 43.62 | — | 75 | 14.67 | 34.48 | 3.79 | 25.66 | 234 | 0.326 |
| 100 | 14.72 | — | 3.70 | 0.25 | 0.01 | 61.80 | — | 100 | 14.72 | — | 3.70 | 25.65 | 235 | 0.385 |
| 125 | 14.73 | 34.49 | 3.35 | 0 | 0.08 | 58.89 | — | 125 | 14.73 | 34.49 | 3.55 | 25.65 | 235 | 0.445 |

# 203선 해 양 관 측 성 적

## Oceanographic Data, Line 203

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 1 | 1500 | 57 | 4 | 4 | 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | 1026.1 | 9.4 | 8.8 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.45 | 34.41 | 6.12 | 0.41 | 0.09 | 45.07 | 7.81 | 0 | 11.45 | 34.41 | 6.12 | 26.25 | 178 | 0.000 |
| 10 | 11.37 | 34.39 | 6.12 | 0.27 | 0.10 | 42.17 | 8.00 | 10 | 11.37 | 34.39 | 6.12 | 26.25 | 178 | 0.018 |
| 20 | 10.71 | 34.30 | 6.33 | 0.25 | 0.11 | 44.35 | 7.98 | 20 | 10.71 | 34.30 | 6.33 | 26.30 | 173 | 0.035 |
| 30 | 9.94 | 34.18 | 6.43 | 0.42 | 0.05 | 53.80 | 7.76 | 30 | 9.94 | 34.18 | 6.43 | 26.34 | 169 | 0.052 |
| 50 | 9.50 | 34.11 | 6.43 | 0.50 | 0.04 | 52.34 | 7.64 | 50 | 9.50 | 34.11 | 6.43 | 26.35 | 168 | 0.086 |
| 54 | 9.48 | 34.10 | 6.43 | 0.33 | 0.04 | 56.71 | 7.72 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 1 | 1350 | 95 | 4 | 7 | W 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1026.9 | 9.9 | 9.6 | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.42 | 34.47 | 6.33 | 0.11 | 0.07 | 47.26 | 7.93 | 0 | 12.42 | 34.47 | 6.33 | 26.12 | 191 | 0.000 |
| 10 | 12.21 | 34.47 | 6.21 | 0.10 | 0.05 | 62.52 | 8.00 | 10 | 12.21 | 34.47 | 6.21 | 26.16 | 187 | 0.019 |
| 20 | 12.24 | 34.48 | 6.12 | 0.28 | 0.09 | 57.43 | 7.90 | 20 | 12.24 | 34.48 | 6.12 | 26.16 | 187 | 0.038 |
| 30 | 12.21 | 34.47 | 6.12 | 0.16 | 0.10 | 59.61 | 7.80 | 30 | 12.21 | 34.47 | 6.12 | 26.16 | 187 | 0.056 |
| 50 | 12.18 | 34.47 | 6.07 | 0.22 | 0.09 | 60.34 | 7.83 | 50 | 12.18 | 34.47 | 6.07 | 26.16 | 187 | 0.094 |
| 75 | 12.20 | 34.47 | 6.07 | 0.18 | 0.06 | 61.07 | 7.80 | 75 | 12.20 | 34.47 | 6.07 | 26.16 | 188 | 0.141 |
| 90 | 12.18 | 34.47 | 6.12 | 0.28 | 0.05 | 69.07 | 7.70 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 1 | 1000 | 135 | 5 | 6 | NW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1028.5 | 8.4 | 8.1 | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.14 | 34.42 | 6.17 | 0.15 | 0.20 | 49.44 | 7.93 | 0 | 12.14 | 34.42 | 6.17 | 26.13 | 189 | 0.000 |
| 10 | 12.13 | 34.42 | 6.24 | 0.18 | 0.07 | 53.80 | 7.90 | 10 | 12.13 | 34.42 | 6.24 | 26.13 | 189 | 0.019 |
| 20 | 12.10 | 34.42 | 6.22 | 0.21 | 0.18 | 58.89 | 8.00 | 20 | 12.10 | 34.42 | 6.22 | 26.15 | 188 | 0.038 |
| 30 | 12.09 | 34.43 | 6.22 | 0.05 | 0.12 | 62.52 | 7.93 | 30 | 12.09 | 34.43 | 6.22 | 26.15 | 187 | 0.057 |
| 50 | 12.11 | 34.43 | 6.12 | 0.10 | 0.06 | 61.80 | 7.78 | 50 | 12.11 | 34.43 | 6.12 | 26.14 | 188 | 0.094 |
| 75 | 12.09 | 34.43 | 6.12 | — | — | — | 7.75 | 75 | 12.09 | 34.43 | 6.12 | 26.15 | 187 | 0.142 |
| 100 | 12.10 | 34.44 | 6.12 | 0.25 | 0.09 | 64.70 | 7.74 | 100 | 12.10 | 34.44 | 6.12 | 26.15 | 187 | 0.189 |
| 134 | 12.10 | 34.44 | 6.12 | 0.18 | 0.09 | 70.52 | 7.90 | 125 | 12.10 | 34.44 | 6.12 | 26.16 | 187 | 0.236 |

8월(August) 조사선(Han Ra San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 13 | 0115 | 56 | | | NE 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1000.6 | 26.8 | | As | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 23.44 | 31.79 | 4.91 | 0 | — | — | — | 0 | 23.44 | 31.79 | 4.91 | 21.40 | 640 | 0.000 |
| 10 | 23.11 | 31.96 | 5.18 | 0 | — | 53.80 | — | 10 | 23.11 | 31.96 | 5.18 | 21.63 | 619 | 0.063 |
| 20 | 19.42 | 32.53 | 5.37 | 0 | — | — | — | 20 | 19.42 | 32.53 | 5.37 | 23.05 | 483 | 0.118 |
| 30 | 17.30 | 32.78 | 5.54 | 1.75 | — | 72.70 | 7.75 | 30 | 17.30 | 32.78 | 5.54 | 23.55 | 435 | 0.164 |
| 53 | 13.52 | 33.51 | — | — | — | — | 7.77 | 50 | 14.16 | 33.37 | — | 24.91 | 346 | 0.239 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 13 | 0535 | 104 | 3 | 22 | ENE 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 1 | 1000.3 | 26.8 | | As | 4 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 22.59 | 30.83 | — | 0 | — | 27.63 | 8.03 | 0 | 22.59 | 30.83 | — | 20.92 | 686 | 0.000 |
| 10 | 26.58 | — | 4.40 | 0 | — | 61.07 | 8.12 | 10 | 26.58 | 31.97 | 4.40 | 20.59 | 718 | 0.070 |
| 20 | 21.96 | 32.81 | 6.43 | 0 | — | 45.80 | 8.2 | 20 | 21.96 | 32.81 | 6.43 | 22.52 | 527 | 0.133 |
| 30 | 17.14 | 33.35 | 5.56 | 0.70 | — | 61.07 | 8.24 | 30 | 17.14 | 33.35 | 5.56 | 24.24 | 359 | 0.177 |
| 50 | 13.13 | 33.66 | — | 0 | — | — | 8.24 | 50 | 13.13 | 33.66 | — | 25.35 | 263 | 0.241 |
| 75 | 13.14 | 34.24 | — | 0.70 | — | — | 7.86 | 75 | 13.14 | 34.24 | — | 25.79 | 221 | 0.302 |
| 100 | 13.29 | 33.92 | 5.50 | 1.08 | — | — | 7.90 | 100 | 13.29 | 33.92 | — | 25.51 | 248 | 0.361 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 13 | 0735 | 144 | 3 | 25 | E 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1007.9 | 26.7 | | Ci | 4 | Bcl |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$S-i μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.01 | 32.68 | 4.68 | 0.80 | — | 35.62 | 7.90 | 0 | 26.01 | 32.68 | 4.68 | 21.31 | 649 | 0.000 |
| 10 | 26.67 | 32.71 | 4.62 | 0 | — | 45.80 | 8.11 | 10 | 26.67 | 32.71 | 4.62 | 21.12 | 667 | 0.066 |
| 20 | 24.04 | 32.83 | 5.08 | 0 | — | 41.44 | 8.04 | 20 | 24.04 | 32.83 | 5.08 | 21.99 | 584 | 0.182 |
| 30 | 21.04 | 33.10 | 5.46 | 0 | — | 56.71 | — | 30 | 21.04 | 33.10 | 5.46 | 23.06 | 482 | 0.182 |
| 50 | 14.34 | 33.59 | 5.77 | 0 | — | 71.97 | 7.98 | 50 | 14.34 | 33.59 | 5.77 | 25.04 | 292 | 0.259 |
| 75 | 14.03 | 34.20 | 4.89 | 0.04 | — | 51.62 | — | 75 | 14.03 | 34.20 | 4.89 | 25.59 | 241 | 0.327 |
| 100 | 14.11 | 34.33 | — | 0 | — | 64.70 | 8.10 | 100 | 14.11 | 34.33 | — | 25.67 | 233 | 0.386 |
| 125 | 14.21 | 34.35 | — | 0 | — | 66.88 | 8.21 | 125 | 14.21 | 34.35 | — | 25.66 | 234 | 0.446 |
| 140 | 14.16 | 34.35 | — | 0 | — | 71.97 | 8.21 | — | — | — | — | — | — | — |

# 313선 해 양 관 측 성 적

## Oceanographic Data Line 313

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 1 | 0805 | 90 | 5 | 7 | NW 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1027.8 | 8.1 | 7.6 | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.39 | 34.37 | 6.28 | 0.07 | 0.09 | 28.35 | 8.00 | 0 | 12.39 | 34.37 | 6.28 | 26.04 | 197 | 0.000 |
| 10 | 12.43 | 34.37 | 6.22 | 0.07 | 0.06 | 34.17 | 7.99 | 10 | 12.43 | 34.37 | 6.22 | 26.04 | 198 | 0.020 |
| 20 | 12.43 | 34.37 | 6.07 | 0.06 | 0.07 | 47.98 | 8.00 | 20 | 12.43 | 34.37 | 6.07 | 26.04 | 198 | 0.040 |
| 30 | 12.48 | 34.38 | 6.17 | 0.11 | 0.08 | 40.71 | 7.96 | 30 | 12.48 | 34.38 | 6.17 | 26.03 | 198 | 0.060 |
| 50 | 12.48 | 34.38 | 6.17 | 0.08 | 0.09 | 70.97 | 7.96 | 50 | 12.48 | 34.38 | 6.17 | 26.03 | 198 | 0.099 |
| 75 | 12.49 | 34.38 | 6.07 | 0.10 | 0.09 | 71.25 | 7.99 | 75 | 12.49 | 34.38 | 6.07 | 26.03 | 198 | 0.149 |
| 86 | 12.51 | 34.39 | 6.24 | 0.21 | 0.06 | 80.70 | 7.95 | | | | | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 1 | 0650 | 92 | | | 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WNW | 1 | 1027.5 | 7.2 | 6.8 | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.65 | 34.32 | 6.08 | 0.41 | 0.17 | 10.91 | 8.07 | 0 | 11.65 | 34.32 | 6.08 | 26.15 | 188 | 0.000 |
| 10 | 11.68 | 34.31 | 6.06 | 0.14 | 0.16 | 13.81 | 8.02 | 10 | 11.68 | 34.31 | 6.06 | 26.13 | 189 | 0.019 |
| 20 | 11.70 | 34.30 | 6.12 | 0.11 | 0.17 | 31.26 | 8.95 | 20 | 11.70 | 34.30 | 6.12 | 26.12 | 190 | 0.038 |
| 30 | 11.68 | 34.31 | 6.22 | 0.10 | 0.15 | 31.99 | 7.89 | 30 | 11.68 | 34.31 | 6.22 | 26.13 | 189 | 0.057 |
| 50 | 11.69 | 34.31 | 6.22 | 0.08 | 0.13 | 57.43 | 7.95 | 50 | 11.69 | 34.31 | 6.22 | 26.13 | 189 | 0.095 |
| 75 | 11.71 | 34.31 | 6.22 | 0.10 | 0.09 | 71.97 | 7.96 | 75 | 11.71 | 34.31 | 6.22 | 26.13 | 189 | 0.143 |
| 88 | 11.70 | 34.31 | 6.12 | 0.57 | 0.07 | 78.52 | 7.95 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 1 | 0530 | 88 | | | 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 3 | 1027.0 | 7.4 | 6.8 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ⊿D dyn. m |
| 0 | 11.85 | 34.25 | 6.12 | 0.29 | 0.15 | 14.54 | 8.02 | 0 | 11.85 | 34.25 | 6.12 | 26.05 | 196 | 0.000 |
| 10 | 11.88 | 34.26 | 6.23 | 0.13 | 0.12 | 14.54 | 8.14 | 10 | 11.88 | 34.26 | 6.23 | 26.06 | 196 | 0.020 |
| 20 | 11.92 | 34.27 | 6.06 | 0.14 | 0.12 | 13.81 | 8.15 | 20 | 11.92 | 34.27 | 6.06 | 26.06 | 196 | 0.039 |
| 30 | 11.90 | 34.25 | 6.11 | 0.21 | 0.14 | 8.00 | 8.13 | 30 | 11.90 | 34.25 | 6.11 | 26.05 | 197 | 0.059 |
| 50 | 11.81 | 34.25 | 6.07 | 0.08 | 0.09 | 8.00 | 8.10 | 50 | 11.81 | 34.25 | 6.07 | 26.06 | 196 | 0.099 |
| 75 | 11.67 | 34.67 | 6.12 | 0.42 | 0.10 | 13.81 | 8.00 | 75 | 11.67 | 34.67 | 6.12 | 26.41 | 162 | 0.144 |
| 85 | 11.63 | 34.28 | 5.90 | 0.13 | 0.04 | 12.36 | 8.03 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 1 | 0400 | 84 | | | W 2 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1027.1 | 7.3 | 6.7 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ⊿D dyn. m |
| 0 | 11.46 | 34.25 | 6.11 | 0.27 | 0.13 | 12.36 | 8.11 | 0 | 11.46 | 34.25 | 6.11 | 26.14 | 192 | 0.000 |
| 10 | 11.51 | 34.25 | 6.07 | 0.25 | 0.11 | 8.72 | 8.15 | 10 | 11.51 | 34.25 | 6.07 | 26.12 | 190 | 0.019 |
| 20 | 11.50 | 34.25 | 6.08 | 0.20 | 0.08 | 13.09 | 8.12 | 20 | 11.50 | 34.25 | 6.08 | 26.12 | 190 | 0.038 |
| 30 | 11.52 | 34.26 | 6.16 | 0.20 | 0.06 | 12.36 | 8.10 | 30 | 11.52 | 34.26 | 6.16 | 26.12 | 189 | 0.057 |
| 50 | 11.47 | 34.26 | 6.22 | 0.15 | 0.07 | 12.36 | 8.05 | 50 | 11.47 | 34.26 | 6.22 | 26.13 | 189 | 0.096 |
| 75 | 11.46 | 34.26 | 6.12 | 0.25 | 0.05 | 15.27 | 8.10 | 75 | 11.46 | 34.26 | 6.12 | 26.14 | 189 | 0.143 |
| 80 | 11.44 | 34.30 | 6.17 | 0.21 | 0.09 | 19.63 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 1 | 0240 | 83 | | | W 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1027.3 | 7.0 | 6.6 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-ta/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-6}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.74 | 34.26 | 6.00 | — | — | — | 8.07 | 0 | 11.74 | 34.26 | 6.00 | 26.08 | 194 | 0.000 |
| 10 | 11.74 | 34.25 | 6.03 | 0.13 | 0.18 | 18.90 | 7.92 | 10 | 11.74 | 34.25 | 6.03 | 26.08 | 194 | 0.019 |
| 20 | 11.74 | 34.25 | 6.07 | 0.18 | 0.14 | 18.18 | 7.98 | 20 | 11.74 | 34.25 | 6.07 | 26.08 | 194 | 0.039 |
| 30 | 11.76 | 34.23 | 6.11 | 0.14 | 0.13 | 19.63 | 8.05 | 30 | 11.76 | 34.23 | 6.11 | 26.06 | 196 | 0.058 |
| 50 | 11.73 | 34.25 | 6.04 | 0.34 | 0.09 | 18.90 | 8.08 | 50 | 11.73 | 34.25 | 6.04 | 26.08 | 194 | 0.098 |
| 75 | 11.76 | 34.25 | 6.07 | 0.28 | 0.09 | 22.54 | 7.98 | 75 | 11.76 | 34.25 | 6.07 | 26.07 | 195 | 0.147 |
| 79 | 11.76 | 34.24 | 6.07 | 0.64 | 0.12 | 31.26 | 8.06 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 1 | 0125 | 72 | | | W 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1027.5 | 7.2 | 6.6 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.54 | 34.19 | 6.16 | 0.35 | 0.12 | 17.45 | 8.10 | 0 | 11.54 | 34.19 | 6.16 | 26.07 | 195 | 0.000 |
| 10 | 11.56 | 34.20 | 6.14 | 0.28 | 0.05 | 18.90 | 8.10 | 0 | 11.56 | 34.20 | 6.14 | 26.07 | 195 | 0.020 |
| 20 | 11.55 | 34.23 | 6.12 | 0.25 | 0.05 | 19.18 | 8.13 | 20 | 11.55 | 34.23 | 6.12 | 26.10 | 193 | 0.039 |
| 30 | 11.53 | 34.18 | 6.10 | 0.22 | 0.06 | 19.18 | 8.13 | 30 | 11.53 | 34.18 | 6.10 | 26.05 | 197 | 0.059 |
| 50 | 11.55 | 34.20 | 6.07 | 0.29 | 0.06 | 19.63 | 8.12 | 50 | 11.55 | 34.19 | 6.07 | 26.02 | 200 | 0.098 |
| 65 | 11.56 | 34.17 | 6.06 | 0.34 | 0.04 | 20.36 | 8.07 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 1 | 15 | 76 | | | WNW 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WNW | 2 | 1027.6 | 6.9 | 6.6 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.20 | 34.20 | 6.07 | 0.27 | 0.15 | 13.09 | 8.11 | 0 | 11.20 | 34.20 | 6.07 | 26.14 | 189 | 0.000 |
| 10 | 11.26 | 34.18 | 6.08 | 0.24 | 0.06 | 14.54 | 8.11 | 10 | 11.26 | 34.18 | 6.08 | 26.11 | 181 | 0.019 |
| 20 | 11.29 | 34.20 | 6.26 | 0.21 | 0.07 | 10.91 | 8.10 | 20 | 11.29 | 34.20 | 6.26 | 26.12 | 190 | 0.038 |
| 30 | 11.25 | 34.19 | 6.28 | 0.25 | 0.09 | 18.18 | 8.10 | 30 | 11.25 | 34.19 | 6.28 | 26.12 | 190 | 0.057 |
| 50 | 11.27 | 34.19 | 6.31 | 0.15 | 0.07 | 21.08 | 8.10 | 50 | 11.27 | 34.19 | 6.31 | 26.12 | 191 | 0.095 |
| 71 | 11.25 | 34.22 | 6.12 | 0.32 | 0.04 | 21.08 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 28 | 2109 | 70 | | | 3 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 3 | 1022.9 | 6.8 | 6.6 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | $-T^5g$ $10^{-5}$ D-T | △D dyn. m |
| 0 | 11.08 | 34.23 | — | 0.27 | 0.14 | 14.54 | 8.10 | 0 | 11.08 | 34.23 | — | 26.18 | 184 | 0.000 |
| 10 | 11.10 | 34.22 | 6.47 | 0.24 | 0.14 | 13.81 | 8.10 | 10 | 11.10 | 34.22 | 6.47 | 26.17 | 185 | 0.019 |
| 20 | 11.09 | 34.23 | 6.34 | 0.21 | 0.14 | 12.36 | 8.10 | 20 | 11.09 | 34.23 | 6.34 | 26.18 | 185 | 0.037 |
| 30 | 11.12 | 34.23 | 6.12 | 0.25 | 0.14 | 12.36 | 8.09 | 30 | 11.12 | 34.23 | 6.12 | 26.17 | 185 | 0.056 |
| 50 | 11.07 | 34.21 | 6.12 | 0.25 | 0.14 | 13.09 | 8.10 | 50 | 11.07 | 34.21 | 6.12 | 26.17 | 186 | 0.093 |
| 65 | 11.08 | 34.20 | 6.12 | 0.28 | 0.10 | 21.08 | 8.15 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 28 | 2255 | 70 | | | 3 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 3 | 1027.9 | 6.8 | 6.6 | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | Δ D dyn. m |
| 0 | 10.08 | 34.15 | 6.61 | 0.21 | 0.15 | 24.72 | 7.80 | 0 | 10.08 | 34.15 | 6.61 | 26.30 | 174 | 0.000 |
| 10 | 10.08 | 34.13 | 6.22 | 0.19 | 0.13 | 21.08 | 7.80 | 10 | 10.08 | 34.13 | 6.22 | 26.28 | 175 | 0.017 |
| 20 | 10.07 | 34.13 | 6.33 | 0.13 | 0.11 | 19.63 | 7.81 | 20 | 10.07 | 34.13 | 6.33 | 26.28 | 175 | 0.035 |
| 30 | 10.04 | 34.13 | 6.51 | 0.11 | 0.10 | 19.63 | 8.10 | 30 | 10.04 | 34.13 | 6.51 | 26.29 | 174 | 0.052 |
| 49 | 10.09 | 34.12 | 6.38 | 0.08 | 0.12 | 21.08 | 8.08 | 50 | 10.04 | 34.13 | 6.51 | 26.29 | 174 | 0.088 |
| 62 | 10.09 | 34.14 | 6.29 | 0.24 | 0.13 | 29.81 | 8.08 | — | — | — | — | — | — | — |

8월(August) 조사선(Chun Ma San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 13 | 1815 | 96 | 2 | 20 | S 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 5 | 998 | 28.7 | | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μga-t/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | Δ D dyn. m |
| 0 | 28.38 | 32.17 | 4.41 | 0.03 | 0.09 | 37.80 | 7.92 | 0 | 28.38 | 32.17 | 4.41 | 20.17 | 759 | 0.000 |
| 10 | 25.46 | 32.28 | 4.79 | 0 | 0 | 23.98 | 8.25 | 10 | 25.46 | 32.28 | 4.79 | 21.17 | 663 | 0.071 |
| 20 | 21.67 | 33.06 | 5.08 | 0 | 0.09 | 46.53 | 8.10 | 20 | 21.67 | 33.06 | 5.08 | 22.86 | 501 | 0.127 |
| 30 | 18.64 | — | — | — | — | — | — | 30 | 18.64 | — | — | 23.65 | 426 | 0.176 |
| 50 | 14.39 | 33.09 | 4.50 | 0.04 | 0.05 | 58.16 | 8.05 | 50 | 14.39 | 33.09 | 4.50 | 24.65 | 330 | 0.252 |
| 75 | 14.33 | 33.82 | 3.26 | 0.06 | 0.05 | 48.71 | 8.40 | 75 | 14.33 | 33.82 | 3.26 | 25.22 | 275 | 0.328 |
| 93 | 14.30 | 33.84 | 4.70 | 0.04 | 0 | 36.35 | 8.22 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 13 | 2030 | 92 | 2 | 20 | SW2 | SW2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 5 | 999.8 | 28.7 | | St | 3 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.44 | — | 4.31 | 0.07 | 0 | 45.07 | — | 0 | 29.44 | — | 4.31 | | | |
| 10 | 23.65 | 31.71 | 5.14 | 0 | 0 | 31.26 | 7.90 | 10 | 23.65 | 31.71 | 5.14 | | | |
| 20 | 23.54 | 31.90 | 5.87 | 0 | 0 | 26.17 | 8.45 | 20 | 23.54 | 31.90 | 5.87 | | | |
| 30 | 15.83 | 32.13 | 4.71 | 0 | 0 | 51.62 | | 30 | 15.83 | 32.13 | 4.71 | | | |
| 50 | 15.13 | 33.94 | — | 0 | 0 | 60.34 | 7.59 | 50 | 15.13 | 33.94 | 4.64 | | | |
| 75 | 14.15 | 33.99 | 4.57 | 0 | 0 | 47.26 | 7.40 | 75 | 14.15 | 33.99 | 4.57 | | | |
| 90 | 13.98 | — | 4.50 | 0.11 | 0 | 31.26 | 7.30 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 13 | 2210 | 88 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μgat/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.42 | 30.55 | 4.18 | 0 | 0.03 | 50.89 | 8.60 | 0 | 28.42 | 30.55 | 4.18 | 18.94 | 877 | 0.000 |
| 10 | 25.87 | 31.78 | 4.69 | 0 | 0.13 | 74.88 | — | 10 | 25.87 | 31.78 | 4.69 | 20.68 | 710 | 0.079 |
| 20 | 19.67 | — | — | — | — | — | — | 20 | 19.67 | 32.27 | 4.66 | 22.80 | 537 | 0.140 |
| 30 | 14.36 | 32.52 | 4.46 | 0 | 0.12 | 79.24 | 8.00 | 30 | 14.36 | 32.52 | 4.46 | 24.22 | 371 | 0.184 |
| 50 | 14.23 | 33.58 | 4.52 | 0 | 0 | 51.62 | 8.15 | 50 | 14.23 | 33.58 | 4.52 | 25.06 | 291 | 0.251 |
| 85 | 14.56 | 33.73 | 4.52 | 0.06 | 0 | 36.35 | 8.22 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 13 | 2330 | 86 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 28.24 | 30.31 | 4.31 | 0.01 | 0.04 | 71.25 | 8.20 | 0 | 28.24 | 30.31 | 4.31 | 18.82 | 889 | 0.000 |
| 10 | 27.28 | 31.30 | 4.31 | 0 | 0 | 37.08 | 8.62 | 10 | 27.28 | 31.30 | 4.31 | 19.87 | 787 | 0.084 |
| 20 | 21.32 | 32.06 | 5.33 | 0.01 | 0 | 53.07 | 8.20 | 20 | 21.32 | 32.02 | 5.33 | 22.17 | 567 | 0.552 |
| 30 | 15.41 | 33.04 | 4.42 | 0 | 0 | 47.26 | 8.13 | 30 | 15.41 | 33.06 | 4.42 | 24.41 | 353 | 0.198 |
| 50 | 13.33 | 33.59 | 6.05 | — | — | — | 8.08 | 50 | 13.33 | 33.59 | 6.05 | 25.25 | 273 | 0.260 |
| 83 | 13.29 | 33.64 | 4.83 | — | — | — | 8.07 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water doror | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 14 | 0050 | 83 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at. L | $SiO_2$-Si μg at l. | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 28.23 | 31.01 | 4.79 | 0 | 0.15 | 47.26 | 7.90 | 0 | 28.23 | 31.01 | 4.79 | 19.35 | 838 | 0.000 |
| 10 | 27.68 | 30.97 | 5.87 | 0 | 0.01 | 40.71 | 7.77 | 10 | 27.68 | 30.97 | 5.87 | 19.49 | 824 | 0.083 |
| 20 | 22.64 | 31.55 | 5.85 | 0 | 0.01 | 36.35 | 8.60 | 20 | 22.64 | 31.55 | 5.85 | 21.45 | 636 | 0.156 |
| 30 | 17.20 | 32.32 | 5.92 | 0 | 0 | 26.89 | 8.65 | 30 | 17.20 | 32.32 | 5.92 | 23.44 | 446 | 0.210 |
| 50 | 13.17 | 33.41 | 4.79 | 0 | 0 | 32.72 | 8.03 | 50 | 13.17 | 33.41 | 4.79 | 25.15 | 282 | 0.282 |
| 80 | 12.91 | 33.48 | 4.79 | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 14 | 0230 | 87 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z *m* | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z *m* | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.91 | 30.45 | 4.18 | 0.01 | 0 | 29.08 | 7.85 | 0 | 27.91 | 30.45 | 4.18 | 19.04 | 868 | 0.000 |
| 10 | 27.87 | 30.57 | 4.32 | 0 | 0 | 34.90 | 8.16 | 10 | 27.87 | 30.57 | 4.32 | 19.14 | 858 | 0.086 |
| 20 | 26.51 | — | — | — | — | — | — | 20 | 26.51 | — | — | 20.07 | 768 | 0.168 |
| 30 | 20.66 | 32.10 | 5.46 | 0 | 0.02 | 48.71 | 8.50 | 30 | 20.66 | 32.10 | 5.46 | 22.40 | 544 | 0.233 |
| 50 | 13.36 | 33.46 | 4.72 | 0.14 | 0.04 | 40.71 | 8.20 | 50 | 13.36 | 33.46 | 4.72 | 25.15 | 282 | 0.316 |
| 84 | 13.21 | 33.56 | 4.27 | 0.01 | 0.02 | 40.71 | 8.15 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Conor | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 14 | 0410 | 76 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z *m* | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z *m* | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.23 | 31.04 | 4.45 | 0 | 0.11 | 45.80 | — | 0 | 28.23 | 31.04 | 4.45 | 19.37 | 835 | 0.000 |
| 10 | 27.38 | 30.63 | 5.14 | 0 | 0.07 | 33.44 | 8.70 | 10 | 27.38 | 30.63 | 5.14 | 19.34 | 838 | 0.084 |
| 20 | 22.30 | 31.92 | 6.04 | 0 | 0 | 34.17 | 8.25 | 20 | 22.30 | 31.92 | 6.04 | 21.82 | 600 | 0.156 |
| 30 | 13.59 | 32.91 | 5.16 | 0 | 0 | 53.07 | 8.02 | 30 | 13.59 | 32.91 | 5.16 | 24.68 | 327 | 0.202 |
| 50 | 12.20 | 33.23 | 4.89 | 0.13 | 0 | — | 8.07 | 50 | 12.20 | 33.23 | 4.89 | 25.19 | 279 | 0.263 |
| 74 | 11.79 | 33.20 | 4.83 | 0.04 | 0 | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 14 | 0540 | 80 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg·at/L | $NO_2$-N μg·at/L | $SiO_2$-Si μg·at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-6}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.15 | 30.47 | 6.23 | 0.06 | 0.05 | — | — | 0 | 28.15 | 30.47 | 6.23 | 18.97 | 874 | 0.000 |
| 10 | 27.62 | 30.64 | 4.64 | 0.01 | 0 | — | 7.42 | 10 | 27.62 | 30.64 | 4.46 | 19.27 | 846 | 0.086 |
| 20 | 26.02 | 30.48 | 5.00 | 0 | 0 | 47.26 | 7.85 | 20 | 26.02 | 30.48 | 5.00 | 19.65 | 809 | 0.169 |
| 30 | 15.03 | 33.41 | 5.96 | 0 | 0 | 43.63 | 7.78 | 30 | 15.03 | 33.41 | 5.96 | 24.57 | 337 | 0.226 |
| 50 | 14.03 | 33.47 | — | 0 | 0 | 31.97 | — | 50 | 14.03 | 33.47 | — | 24.77 | 299 | 0.292 |
| 75 | 13.34 | 33.47 | — | 0 | 0 | 32.72 | 7.96 | 75 | 13.34 | 33.47 | — | 25.16 | 282 | 0.363 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 14 | 0740 | 82 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg·at/L | $NO_2$-N μg·at/L | $SiO_2$-Si μg·at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.21 | 30.55 | 4.41 | 0.08 | 0 | 34.17 | 7.58 | 0 | 28.21 | 30.55 | 4.41 | 19.01 | 870 | 0.000 |
| 10 | 22.83 | 30.49 | 5.08 | 0 | 0 | 38.53 | 7.70 | 10 | 22.83 | 30.49 | 5.08 | 20.59 | 718 | 0.079 |
| 20 | 19.06 | 31.21 | 5.75 | 0 | 0 | 23.26 | 8.35 | 20 | 19.06 | 31.21 | 5.75 | 22.14 | 570 | 0.144 |
| 30 | 12.34 | 32.62 | 5.67 | 0 | 0 | 34.90 | 7.45 | 30 | 12.34 | 32.62 | 5.67 | 24.70 | 326 | 0.189 |
| 50 | 11.84 | 32.99 | 4.95 | 0.11 | 0 | 36.35 | 7.48 | 50 | 11.84 | 32.99 | 4.95 | 25.08 | 289 | 0.250 |
| 75 | 9.90 | 33.07 | 5.08 | 0.13 | 0 | 39.26 | 8.50 | 75 | 9.90 | 33.07 | 5.08 | 25.48 | 251 | 0.318 |

# 314선 해 양 관 측 성 적

## Oceanographic Data, Line 314

2월(February) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Water | Swell |
|---|---|---|---|---|---|---|---|
| 001 | 18 | 2325 | 160 | | | NNW 5 | 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 4 | 1027.0 | 2.2 | 2.0 | Cu | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 14.60 | 34.67 | 6.49 | 0.09 | 0.31 | 15.27 | 8.40 | 0 | 14.60 | 34.67 | 6.49 | 25.82 | 218 | 0.000 |
| 10 | 14.59 | — | 6.63 | 0.11 | 0.31 | 13.81 | 8.52 | 10 | 14.59 | 34.65 | 6.63 | 25.82 | 219 | 0.022 |
| 20 | 14.61 | 34.66 | 6.40 | 0.06 | 0.26 | 13.09 | 8.50 | 20 | 14.61 | 34.66 | 6.40 | 25.81 | 219 | 0.044 |
| 29 | 14.65 | 34.67 | 6.35 | 0.07 | 0.20 | 16.72 | 8.50 | 30 | 14.65 | 34.67 | 6.34 | 25.81 | 219 | 0.066 |
| 48 | 14.63 | 34.67 | 6.28 | 0.07 | 0.20 | 18.18 | 8.40 | 50 | 14.63 | 34.67 | 6.23 | 25.82 | 219 | 0.110 |
| 72 | 14.62 | 34.66 | 6.33 | 0.03 | 0.18 | 14.54 | 8.30 | 75 | 14.62 | 34.65 | 6.41 | 25.80 | 220 | 0.165 |
| 96 | 14.51 | 34.62 | 6.64 | 0.14 | 0.10 | 13.09 | 8.45 | 100 | 14.51 | 34.62 | 6.68 | 25.81 | 220 | 0.221 |
| 120 | 14.47 | 34.65 | 6.79 | 0.21 | 0.10 | 21.81 | 8.40 | 125 | 14.47 | 34.65 | 6.78 | 25.84 | 217 | 0.276 |
| 144 | 4.46 | 34.64 | 6.64 | 0.27 | 0.24 | 18.1 | 8.22 | | | | | | — | — |

| St No. | Date | Time | Dept | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 19 | 0530 | 125 | | | N 5 | 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 5 | 1027.8 | 5.8 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 15.14 | 34.71 | 6.94 | 0.15 | 0.23 | 14.54 | 7.90 | 0 | 15.14 | 34.71 | 6.94 | 25.74 | 227 | 0.000 |
| 10 | 15.17 | 34.67 | 6.94 | 0.21 | 0.24 | 15.99 | 7.79 | 10 | 15.17 | 34.66 | 6.96 | 25.70 | 231 | 0.023 |
| 19 | 15.23 | 34.66 | 7.09 | 0.15 | 0.17 | 15.27 | 7.95 | 20 | 15.23 | 34.65 | 7.08 | 25.68 | 232 | 0.046 |
| 29 | 15.21 | 34.65 | 6.97 | 0.15 | 0.22 | 20.36 | 7.90 | 30 | 15.21 | 34.67 | 6.96 | 25.69 | 231 | 0.069 |
| 48 | 15.18 | 34.78 | 6.86 | 0.09 | 0.33 | 21.81 | 8.00 | 50 | 15.18 | 34.77 | 6.83 | 25.77 | 223 | 0.165 |
| 71 | 15.05 | 34.63 | 6.57 | 0.10 | 0.17 | 23.26 | 8.09 | 75 | 15.05 | 34.61 | 6.54 | 25.68 | 232 | 0.172 |
| 119 | 15.05 | 34.67 | 6.55 | 0.13 | 0.13 | 29.81 | 8.15 | 100 | 15.02 | 34.59 | 6.46 | 25.68 | 232 | 0.231 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 19 | 0950 | 100 | 5 | 17 | NE 4 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1029.1 | 6.1 | | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T °C | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T °C | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 15.30 | 34.57 | 5.69 | 0.06 | 0.22 | 14.54 | 8.18 | 0 | 15.30 | 34.57 | 5.69 | 25.59 | 240 | 0.000 |
| 10 | 15.31 | 34.60 | 5.65 | 0.08 | 0.19 | 15.27 | 8.15 | 10 | 15.31 | 34.60 | 5.65 | 25.61 | 238 | 0.024 |
| 20 | 15.35 | 34.58 | 5.51 | 0.11 | 0.18 | 10.91 | 8.18 | 20 | 15.35 | 34.58 | 5.51 | 25.59 | 241 | 0.048 |
| 30 | 15.39 | 34.60 | 5.51 | 0.10 | 0.16 | 13.09 | 8.20 | 30 | 15.39 | 34.60 | 5.51 | 25.60 | 240 | 0.072 |
| 49 | 15.38 | 34.59 | 5.50 | 0.07 | 0.18 | 11.63 | 8.20 | 50 | 15.38 | 34.59 | 5.50 | 25.59 | 240 | 0.120 |
| 74 | 15.39 | 34.60 | 5.46 | 0.20 | 0.18 | 18.18 | 8.20 | 75 | 15.39 | 34.60 | 5.46 | 25.60 | 240 | 0.181 |
| 98 | 15.38 | 34.60 | 5.46 | 0.20 | 0.02 | — | 8.25 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 24 | 1200 | 110 | 4 | 11 | NNE 4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | 1018.0 | 7.8 | 10.0 | As | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at L | pH | Z m | T C | S ‰ | $O_2$ %L | σt | D T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 12.62 | 34.38 | 5.77 | 0.11 | 0.15 | 14.54 | 8.36 | 0 | 12.62 | 34.38 | 5.77 | 26.01 | 201 | 0.000 |
| 10 | 13.74 | 34.38 | 5.91 | 0.17 | 0.14 | 9.45 | 8.35 | 10 | 13.74 | 34.38 | 5.91 | 25.78 | 222 | 0.021 |
| 20 | 13.75 | 34.37 | 5.93 | 0.24 | 0.16 | 12.36 | 8.30 | 20 | 13.75 | 34.37 | 5.93 | 25.77 | 223 | 0.044 |
| 30 | 13.77 | 34.38 | 5.94 | 0.18 | 0.14 | 13.09 | 8.25 | 30 | 13.77 | 34.38 | 5.94 | 25.78 | 223 | 0.066 |
| 49 | 13.72 | 34.37 | 5.82 | 0.21 | 0.10 | 15.27 | 8.20 | 50 | 13.72 | 34.37 | 5.81 | 25.78 | 223 | 0.111 |
| 74 | 13.75 | 34.40 | 5.72 | 0.18 | 0.07 | 19.63 | 8.18 | 75 | 13.75 | 34.40 | — | 25.79 | 221 | 0.167 |
| 99 | 13.75 | 34.38 | — | 0.29 | 0.06 | 21.08 | 8.19 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 14 | 1550 | 90 | 4 | 8 | NW 5 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 5 | 1017.3 | 8.2 | | Sc | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.06 | 34.20 | 5.94 | 0.15 | 0.17 | 14.54 | 8.20 | 0 | 13.06 | 34.20 | 5.94 | 25.78 | 222 | 0.000 |
| 9 | 13.09 | 34.20 | 5.88 | 0.13 | 0.18 | 16.72 | 8.20 | 10 | 13.19 | 34.20 | 5.89 | 25.75 | 225 | 0.022 |
| 19 | 13.95 | 34.20 | 5.98 | 0.15 | 0.18 | 18.90 | 8.21 | 20 | 13.88 | 34.20 | 5.97 | 25.61 | 238 | 0.046 |
| 28 | 13.12 | 34.20 | 5.92 | 0.11 | 0.18 | 21.08 | 8.40 | 30 | 13.06 | 34.20 | 5.93 | 25.78 | 223 | 0.069 |
| 47 | 13.14 | 34.20 | 6.08 | 0.17 | 0.09 | 21.08 | 8.40 | 50 | 13.14 | 34.20 | 6.09 | 25.76 | 224 | 0.114 |
| 70 | 13.13 | 34.21 | 6.02 | 0.21 | 0.10 | 19.63 | 8.41 | — | — | — | — | — | — | — |
| 91 | 13.11 | 34.22 | 5.90 | 0.28 | 0.07 | 23.99 | 8.30 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 24 | 2045 | 75 | | | NNE 5 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 5 | 1022.6 | 8.4 | | Sc | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.64 | 33.96 | 6.54 | 0.10 | 0.13 | 10.18 | 8.35 | 0 | 10.64 | 33.96 | 6.54 | 26.05 | 197 | 0.000 |
| 10 | 10.64 | 33.95 | 6.44 | 0.14 | 0.17 | 10.91 | 8.34 | 10 | 10.64 | 33.95 | 6.44 | 29.04 | 198 | 0.020 |
| 19 | 10.63 | 33.95 | 6.83 | 0.25 | 0.16 | 11.63 | 8.26 | 20 | 10.63 | 33.95 | 6.78 | 26.04 | 197 | 0.040 |
| 29 | 10.64 | 33.96 | 6.22 | 0.21 | 0.18 | 8.72 | 8.23 | 30 | 10.64 | 33.96 | 6.20 | 26.05 | 197 | 0.059 |
| 49 | 10.64 | 33.96 | 6.17 | 0.18 | 0.08 | 13.81 | 8.20 | 50 | 10.64 | — | 6.17 | — | — | — |
| 74 | 10.65 | — | 6.24 | 0.25 | 0.02 | 17.45 | 8.20 | — | — | — | — | — | — | — |

8월(August) 조사선(Han Ra San)

| St No. | Date | Time | Depth | Water Cotor | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 00 | 18 | 0200 | 140 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1010.4 | 28.8 | | Cc | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μgat/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.78 | 32.72 | 4.74 | 0 | 0.05 | 18.18 | 7.98 | 0 | 29.78 | 32.72 | 4.74 | 20.11 | 764 | 0.000 |
| 10 | 29.76 | 32.71 | 4.24 | 0 | 0.10 | 29.08 | 7.94 | 10 | 29.76 | 32.71 | 4.24 | 20.11 | 764 | 0.076 |
| 20 | 29.62 | 32.70 | 4.39 | 0 | 0.14 | 31.99 | 8.23 | 20 | 29.62 | 32.70 | 4.39 | 20.15 | 760 | 0.153 |
| 30 | 28.60 | 32.22 | 4.41 | 0.04 | 0.06 | 25.45 | 8.08 | 30 | 28.60 | 32.22 | 4.41 | 20.13 | 762 | 0.229 |
| 50 | 22.48 | 34.02 | 5.09 | 0.15 | 0.05 | 37.80 | 8.10 | 50 | 22.48 | 34.02 | 5.09 | 23.36 | 453 | 0.351 |
| 75 | 16.85 | 34.45 | 3.83 | 0.25 | 0.06 | 28.35 | 7.80 | 75 | 16.85 | 34.45 | 3.83 | 25.15 | 282 | 0.443 |
| 100 | 16.50 | 34.60 | 3.71 | 0.32 | 0.12 | 55.98 | — | 100 | 16.50 | 34.60 | 3.71 | 25.45 | 254 | 0.511 |
| 125 | 15.15 | 34.54 | 3.83 | 0.39 | 0.12 | 21.08 | 7.80 | 125 | 15.15 | 34.54 | 3.83 | 25.61 | 239 | 0.574 |
| 137 | 14.91 | 34.56 | 4.14 | 0.28 | 0.13 | 28.35 | 8.16 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 17 | 2110 | 125 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1010.8 | 29.3 | | Cc | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 30.00 | 32.22 | 4.23 | 0.14 | — | 42.89 | 7.94 | 0 | 30.00 | 32.22 | 4.23 | | | |
| 10 | 29.55 | 32.13 | 4.31 | 0.04 | — | 45.80 | — | 10 | 29.55 | 32.13 | 4.31 | | | |
| 20 | 27.75 | 32.73 | 4.50 | 0.08 | — | 35.62 | 8.15 | 20 | 27.75 | 32.73 | 4.50 | | | |
| 30 | 24.81 | 33.48 | 5.10 | 0.15 | — | 58.89 | 8.24 | 30 | 24.81 | 33.48 | 5.10 | | | |
| 50 | 18.76 | 34.52 | — | 0.18 | — | 37.80 | 8.32 | 50 | 18.76 | 34.52 | — | | | |
| 75 | 16.69 | 34.40 | 3.69 | 0.22 | — | 28.35 | 8.22 | 75 | 16.69 | 34.40 | 3.69 | | | |
| 100 | 15.00 | 34.47 | — | 0.29 | 0.13 | 45.80 | — | 100 | 15.00 | 34.47 | — | | | |
| 122 | 14.71 | 34.52 | 3.74 | 0.41 | 0.10 | 71.97 | 8.00 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 17 | 1645 | 108 | 2 | 22 | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1010.1 | 30.9 | | Cc | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 30.00 | 32.64 | 4.82 | 0 | — | 39.26 | — | 0 | 30.00 | 32.64 | 4.82 | 19.98 | 777 | 0.000 |
| 10 | 23.67 | 32.81 | 4.41 | 0 | — | 42.89 | 8.12 | 10 | 28.67 | 32.81 | 4.41 | 20.56 | 222 | 0.075 |
| 20 | 28.51 | 32.84 | 4.58 | 0.07 | — | 58.89 | 8.30 | 20 | 23.51 | 32.84 | 4.58 | 20.63 | 715 | 0.147 |
| 30 | 21.43 | 33.60 | 5.46 | 0.14 | — | 53.80 | 8.35 | 30 | 21.43 | 33.60 | 5.46 | 23.33 | 456 | 0.205 |
| 50 | 17.40 | 34.46 | 3.83 | 0.31 | — | 58.16 | 8.24 | 50 | 17.40 | 34.46 | 3.83 | 25.02 | 295 | 0.281 |
| 75 | 14.41 | 34.26 | 4.22 | 0.42 | — | 42.89 | 8.20 | 75 | 14.41 | 34.26 | 4.22 | 25.55 | 245 | 0.349 |
| 100 | 14.40 | 34.37 | 4.31 | 0.41 | — | 37.08 | 8.20 | 100 | 14.40 | 34.37 | 4.37 | 25.64 | 236 | 0.409 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 17 | 1220 | 108 | 2 | 29 | SW 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1011.5 | 29.7 | | Cc | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.68 | 32.58 | 4.41 | 0 | — | 60.34 | 8.20 | 0 | 28.68 | 32.58 | 4.41 | 21.93 | 590 | 0.000 |
| 10 | 25.00 | 32.81 | 4.96 | 0 | — | 39.26 | 8.26 | 10 | 25.00 | 32.81 | 4.96 | 21.71 | 611 | 0.060 |
| 20 | 21.33 | 33.42 | 6.23 | 0 | — | 50.16 | 8.10 | 20 | 21.33 | 33.42 | 6.23 | 23.22 | 466 | 0.114 |
| 30 | 16.22 | 33.30 | 6.14 | 0 | — | 58.89 | 8.20 | 30 | 16.22 | 33.30 | 6.14 | 24.41 | 353 | 0.155 |
| 50 | 14.86 | 34.43 | 4.22 | 0.24 | — | 64.70 | 8.16 | 50 | 14.86 | 34.43 | 4.22 | 25.58 | 241 | 0.215 |
| 75 | 14.79 | 34.46 | 4.12 | 0.29 | — | 61.07 | 8.00 | 75 | 14.79 | 34.46 | 4.12 | 25.62 | 238 | 0.275 |
| 105 | 14.77 | 34.44 | 4.12 | 0.21 | — | 45.07 | 8.03 | 100 | 14.76 | 34.44 | 4.11 | 25.61 | 239 | 0.335 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 17 | 0800 | 88 | 3 | 22 | SE 2 | SSE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1010.3 | 29.0 | | Cc | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.24 | 31.18 | 4.33 | 0 | — | 52.34 | 8.30 | 0 | 28.24 | 31.18 | 4.33 | | | |
| 10 | 28.12 | 31.12 | 4.53 | 0 | — | 43.62 | 8.22 | 10 | 28.12 | 31.12 | 4.53 | | | |
| 20 | 20.26 | 31.48 | 5.94 | 0.070 | — | 77.06 | 8.32 | 20 | 20.26 | 31.48 | 5.94 | | | |
| 30 | 17.27 | 32.11 | 5.96 | 0.08 | — | 49.44 | — | 30 | 17.27 | 32.11 | 5.96 | | | |
| 50 | 12.72 | 32.75 | 5.08 | 0.15 | — | 51.62 | 8.23 | 50 | 12.72 | 32.75 | 5.08 | | | |
| 75 | 13.13 | 34.04 | 4.55 | 0 | — | 71.25 | 8.20 | 75 | 13.13 | 34.04 | 4.55 | | | |
| 85 | 13.10 | 34.03 | 5.10 | 0 | — | 49.44 | 8.23 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 17 | 0300 | 80 | | | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1010.1 | 28.2 | | Ac | 4 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO^3$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.83 | 30.40 | 4.20 | 0 | — | 53.07 | 8.30 | 0 | 27.83 | 30.40 | 4.20 | 19.02 | 869 | 0.000 |
| 10 | 27.90 | 30.75 | 4.62 | 0 | — | 42.89 | 8.00 | 10 | 27.90 | 30.75 | 4.62 | 19.26 | 846 | 0.086 |
| 20 | 17.48 | 32.08 | — | 0 | — | 70.52 | 8.14 | 20 | 17.48 | 32.08 | — | 23.18 | 470 | 0.152 |
| 30 | 11.69 | 32.94 | 4.89 | 0.28 | — | 57.43 | 8.15 | 30 | 11.69 | 32.94 | 4.89 | 25.07 | 290 | 0.190 |
| 50 | 11.06 | 33.38 | 5.08 | 0.32 | — | 74.48 | — | 50 | 11.06 | 33.38 | 5.08 | 25.53 | 247 | 0.243 |
| 75 | 11.62 | 33.69 | 4.89 | 0.24 | — | 57.43 | 8.23 | 75 | 11.62 | 33.69 | 4.89 | 25.47 | 252 | 0.306 |

# 315선 해 양 관 측 성 적

## Oceanographic Data Line 315

2월(February) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 27 | 0700 | 220 | 5 | 12 | NNW 6 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 5 | 1022.1 | 7.2 | | W | 7 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 14.90 | 34.67 | 5.37 | 0.21 | 0.18 | 14.54 | 8.20 | 0 | 14.90 | 34.67 | 5.37 | 25.76 | 225 | 0.000 |
| 9 | 13.28 | 34.67 | 5.31 | 0.22 | 0.16 | 15.27 | 8.20 | 10 | 13.35 | 34.67 | 5.32 | 26.08 | 194 | 0.021 |
| 19 | 14.84 | 34.68 | 5.51 | 0.27 | 0.13 | 15.99 | 8.19 | 20 | 14.90 | 34.68 | 5.53 | 25.76 | 224 | 0.042 |
| 29 | 14.81 | 34.68 | 5.51 | 0.27 | 0.15 | 15.27 | 8.17 | 30 | 15.36 | 34.68 | 5.67 | 25.64 | 235 | 0.064 |
| 48 | 14.82 | 34.66 | — | 0.17 | 0.08 | 13.81 | 8.30 | 50 | 16.12 | 34.68 | 5.81 | 25.50 | 249 | 0.114 |
| 71 | 14.87 | 34.68 | 5.18 | 0.22 | 0.08 | 13.81 | 8.30 | 75 | 15.88 | 34.68 | 5.72 | 25.55 | 245 | 0.176 |
| 95 | 14.87 | 34.67 | 5.42 | 0.27 | 0.06 | 15.27 | 8.20 | 100 | 14.88 | 34.66 | 5.27 | 25.76 | 224 | 0.235 |
| 119 | 14.83 | 34.66 | 4.81 | 0.29 | 0.11 | 21.81 | 8.27 | 125 | 14.72 | 34.65 | 4.83 | 25.78 | 222 | 0.292 |
| 143 | 14.38 | 34.63 | 5.00 | 0.27 | 0.12 | 23.26 | 8.22 | 150 | 14.32 | 34.62 | 5.03 | 25.85 | 216 | 0.347 |
| 184 | 14.23 | 34.62 | 4.98 | 0.27 | 0.10 | 21.08 | 8.12 | 200 | 14.16 | — | — | — | — | — |
| 205 | 14.14 | — | — | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 27 | 0240 | 160 | | | NNW 4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 4 | 1022.0 | 7.6 | | Cu | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 15.77 | 34.72 | 5.44 | 0.21 | 0.18 | 14.54 | 8.20 | 0 | 15.77 | 34.72 | 5.44 | 25.60 | 239 | 0.000 |
| 9 | 15.47 | 34.73 | 5.51 | 0.17 | 0.14 | 17.45 | 8.20 | 10 | 15.52 | 34.72 | 5.51 | 25.66 | 233 | 0.024 |
| 18 | 16.00 | 34.72 | 5.51 | 0.18 | 0.06 | 13.81 | 8.40 | 20 | 16.03 | 34.71 | 5.51 | 25.54 | 245 | 0.048 |
| 27 | 16.01 | 34.72 | 5.49 | 0.28 | 0.15 | 11.63 | 8.20 | 30 | 16.01 | 34.72 | 5.47 | 25.55 | 244 | 0.072 |
| 44 | 16.01 | 34.73 | 5.41 | 0.20 | 0.18 | 13.81 | 8.15 | 50 | 16.02 | 34.73 | 5.40 | 25.55 | 244 | 0.121 |
| 66 | 15.98 | 34.73 | 5.41 | 0.21 | 0.10 | 15.27 | 8.18 | 75 | 15.81 | 34.72 | 5.45 | 25.60 | 240 | 0.182 |
| 88 | 15.53 | 34.71 | 5.51 | 0.22 | 0.09 | 15.27 | 8.21 | 100 | 15.34 | 34.70 | 5.51 | 25.68 | 232 | 0.242 |
| 110 | 15.22 | 34.70 | 5.51 | 0.24 | 0.13 | 15.99 | 8.23 | 125 | 15.08 | 34.71 | 5.52 | 25.75 | 225 | 0.300 |
| 132 | 15.05 | 34.73 | 5.53 | 0.28 | 0.12 | 18.18 | 8.18 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 26 | 2300 | 124 | | | N 5 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 4 | 1022.4 | 7.6 | | Cu | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 15.82 | 34.70 | 5.34 | 0.20 | 0.12 | 17.45 | 8.30 | 0 | 15.82 | 34.70 | 5.34 | 25.58 | 242 | 0.000 |
| 9 | 15.89 | 34.72 | 5.29 | 0.11 | 0.12 | 11.63 | 8.30 | 10 | 15.89 | 34.72 | 5.29 | 25.58 | 242 | 0.024 |
| 19 | 15.91 | 34.72 | 5.31 | 0.08 | 0.12 | 11.63 | 8.35 | 20 | 15.91 | 34.72 | 5.27 | 25.57 | 242 | 0.048 |
| 29 | 15.92 | 34.72 | 5.26 | 0.13 | 0.06 | 15.27 | 8.40 | 30 | 15.92 | 34.72 | 5.24 | 25.57 | 243 | 0.073 |
| 48 | 15.91 | 34.71 | 5.31 | 0.18 | 0.11 | 16.72 | 8.32 | 50 | 15.99 | 34.71 | 4.99 | 25.55 | 245 | 0.122 |
| 72 | 15.87 | 34.72 | 4.49 | 0.28 | 0.10 | 15.99 | 8.30 | 75 | 15.93 | 34.69 | 4.81 | 25.55 | 245 | 0.183 |
| 97 | 15.75 | 34.68 | 4.79 | 0.27 | 0.80 | 18.90 | 8.27 | 100 | 15.69 | 34.67 | 4.84 | 25.59 | 241 | 0.245 |
| 120 | 15.24 | 34.66 | 5.31 | 0.29 | 0.40 | 19.63 | 8.25 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 14 | 26 | 1855 | 100 | | | N 4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1022.5 | 7.2 | | Cu | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED σt | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $RiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 15.53 | 34.70 | 5.47 | 0.10 | 0.12 | 18.18 | 8.22 | 0 | 15.53 | 34.70 | 5.47 | 25.64 | 236 | 0.000 |
| 9 | 15.70 | 34.68 | 5.43 | 0.15 | 0.16 | 18.90 | 8.21 | 10 | 15.70 | 34.67 | 5.43 | 25.59 | 241 | 0.024 |
| 19 | 15.74 | 34.68 | 5.33 | 0.20 | 0.18 | 18.18 | 8.30 | 20 | 15.74 | 34.68 | 5.43 | 25.58 | 242 | 0.048 |
| 28 | 15.78 | 34.68 | 5.31 | 0.71 | 0.12 | 17.45 | 8.28 | 30 | 15.74 | 34.68 | 5.39 | 25.58 | 241 | 0.072 |
| 47 | 15.74 | 34.69 | 5.31 | 0.18 | 0.05 | 17.45 | 8.28 | 50 | 15.74 | 34.69 | 5.31 | 25.59 | 241 | 0.121 |
| 70 | 15.76 | 34.69 | 5.30 | 0.28 | 0.06 | 21.08 | 8.30 | 75 | 15.76 | 34.69 | 5.30 | 25.58 | 241 | 0.181 |
| 94 | 15.77 | 34.69 | 5.29 | 0.27 | 0.04 | 19.63 | 8.29 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 16 | 26 | 1520 | 94 | 6 | 9 | NNW 4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | | 1023.2 | 7.0 | | Cu | 5 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SI_2OiSi$ μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 13.87 | 34.26 | 5.85 | 0.20 | 0.07 | 18.18 | 8.25 | 0 | 13.87 | 34.26 | 5.85 | 25.66 | 234 | 0.000 |
| 9 | 13.86 | 34.25 | 5.87 | 0.15 | 0.08 | 16.72 | 8.27 | 10 | 13.85 | 34.24 | 5.87 | 25.66 | 234 | 0.023 |
| 18 | 13.83 | 34.25 | 5.88 | 0.13 | 0.06 | 15.99 | 8.26 | 20 | 13.84 | 34.24 | 5.86 | 25.65 | 235 | 0.047 |
| 28 | 13.86 | 34.23 | 5.75 | — | — | — | 8.13 | 30 | 13.84 | 34.23 | 5.86 | 25.65 | 235 | 0.070 |
| 47 | 13.84 | 34.24 | 5.84 | 0.10 | 0.04 | 16.72 | 8.20 | 50 | 13.84 | 34.24 | 5.84 | 25.65 | 235 | 0.118 |
| 70 | 13.86 | 34.25 | 5.88 | 0.13 | 0.10 | 18.18 | 8.25 | — | — | — | — | — | — | — |
| 85 | 13.85 | — | 5.50 | 0.20 | 0.06 | 21.81 | 8.29 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 18 | 25 | 0345 | 80 | | | W 5 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 5 | 1020.1 | 7.0 | | Sc | 9 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 11.91 | 34.03 | 6.71 | 0.13 | 0.11 | 19.63 | — | 0 | 11.91 | 34.03 | 6.71 | 25.87 | 214 | 0.000 |
| 9 | 12.28 | 34.04 | 5.50 | 0.17 | 0.07 | 21.81 | 8.21 | 10 | 12.29 | 34.03 | 5.52 | 25.81 | 220 | 0.022 |
| 19 | 12.28 | 34.03 | 6.10 | 0.11 | 0.08 | 21.08 | 8.25 | 20 | 12.28 | 34.03 | 6.14 | 25.81 | 220 | 0.044 |
| 28 | 12.29 | 34.07 | 5.94 | 0.14 | 0.10 | 24.72 | 8.29 | 30 | 12.29 | 34.07 | 6.36 | 25.80 | 221 | 0.066 |
| 47 | 12.32 | 34.05 | 5.96 | 0.29 | 0.06 | 25.45 | 8.30 | 50 | 12.31 | 34.04 | 5.96 | 25.81 | 220 | 0.110 |
| 72 | 12.27 | 34.02 | 5.92 | 0.28 | 0.09 | 20.00 | 8.25 | | | | | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 20 | 25 | 00 | 60 | | | W 6 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 6 | 1022.0 | 7.0 | | cu | 5 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 9.01 | 33.30 | 6.45 | 0.28 | 0.14 | 13.09 | 8.12 | 0 | 9.01 | 33.30 | 6.45 | 25.81 | 220 | 0.000 |
| 10 | 9.07 | 33.29 | 6.21 | 0.17 | 0.10 | 9.15 | 8.13 | 10 | 9.07 | 33.29 | 6.21 | 25.79 | 222 | 0.022 |
| 20 | 9.07 | 33.27 | — | 0.36 | 0.16 | 8.72 | 8.10 | 20 | 9.07 | 33.27 | 6.33 | 25.77 | 223 | 0.044 |
| 30 | 9.01 | 33.27 | 6.55 | 0.35 | 0.12 | 10.18 | 8.16 | 30 | 9.01 | 33.27 | 6.55 | 25.78 | 222 | 0.067 |
| 50 | 9.05 | 33.30 | 6.53 | 0.32 | 0.12 | 11.63 | 8.19 | 50 | 9.05 | 33.30 | 6.53 | 25.80 | 220 | 0.111 |

8月(August) 조사선(Han Ra San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 25 | 0310 | 230 | | | W 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1009.0 | 28.8 | | As | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.42 | 33.20 | 4.33 | 0 | 0.06 | 71.25 | 8.32 | 0 | 28.42 | 33.20 | 4.33 | 20.93 | 686 | 0.000 |
| 10 | 28.32 | 33.17 | 4.47 | 0 | 0.06 | 46.53 | 8.50 | 10 | 28.32 | 33.17 | 4.47 | 20.94 | 685 | 0.069 |
| 20 | 27.80 | 33.57 | 4.63 | 0 | 0.03 | 47.98 | 8.25 | 20 | 27.80 | 33.57 | 4.63 | 21.41 | 640 | 0.135 |
| 30 | 25.16 | 34.34 | — | 0 | 0.06 | 61.07 | 8.40 | 30 | 25.16 | 34.34 | — | 22.81 | 505 | 0.192 |
| 50 | 22.84 | 33.41 | 4.33 | 0.01 | 0.10 | 54.53 | 8.33 | 50 | 22.84 | 33.41 | 4.33 | 22.79 | 507 | 0.294 |
| 75 | 18.64 | 34.65 | 4.04 | 0.08 | 0.13 | 45.80 | — | 75 | 18.64 | 34.65 | 4.04 | 28.87 | 309 | 0.396 |
| 100 | 17.00 | 34.68 | 3.91 | 0 | 0.17 | 50.89 | 8.36 | 100 | 17.00 | 34.68 | 3.91 | 25.29 | 270 | 0.469 |
| 125 | 16.15 | 34.65 | 4.03 | 0.03 | 0.04 | 54.53 | 8.43 | 125 | 16.15 | 34.65 | 4.03 | 25.46 | 253 | 0.536 |
| 150 | 15.37 | 34.65 | 4.70 | 0.03 | 0.18 | 50.16 | 8.20 | 150 | 15.37 | 34.65 | 4.70 | 25.64 | 236 | 0.598 |
| 200 | 13.90 | 34.60 | 3.57 | 0.38 | 0.16 | 76.34 | 8.15 | 200 | 13.90 | 34.60 | 3.57 | 25.92 | 209 | 0.712 |
| 225 | 12.86 | 34.56 | 3.46 | 0.20 | 0.18 | 85.06 | 8.82 | — | — | — | -- | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 24 | 2235 | 212 | | | W 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1008.1 | 29.3 | | As | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$–P μg-at/L | $NO_2$–N μg-at/L | $SiO_2$–Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D–T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.32 | 32.73 | 4.23 | 0 | 0.01 | 36.35 | 8.40 | 0 | 29.32 | 32.73 | 4.23 | 20.28 | 748 | 0.000 |
| 10 | 29.38 | 32.74 | 4.33 | 0 | 0 | 39.99 | 8.30 | 10 | 29.38 | 32.74 | 4.33 | 20.26 | 750 | 0.075 |
| 20 | 29.14 | 32.76 | 4.61 | 0 | 0 | 69.19 | 8.25 | 20 | 29.14 | 32.76 | 4.61 | 20.36 | 940 | 0.149 |
| 30 | 27.31 | 33.40 | 4.79 | 0 | 0.02 | 59.61 | 8.30 | 30 | 27.31 | 33.40 | 4.79 | 21.43 | 637 | 0.218 |
| 50 | 22.36 | 34.26 | 4.72 | 0 | 0.04 | 55.25 | 8.40 | 50 | 22.36 | 34.26 | 4.72 | 23.58 | 432 | 0.326 |
| 75 | 21.52 | 34.58 | 4.33 | 0 | 0 | 47.26 | 8.20 | 75 | 21.52 | 34.58 | 4.33 | 24.05 | 387 | 0.429 |
| 100 | 18.39 | 34.61 | 3.95 | 0.06 | 0.03 | 57.43 | — | 100 | 18.39 | 34.61 | 3.95 | 24.90 | 307 | 0.516 |
| 125 | 17.35 | 34.59 | 3.29 | 0.18 | 0 | 57.43 | 8.15 | 125 | 17.35 | 34.59 | 3.29 | 25.14 | 284 | 0.591 |
| 150 | 15.97 | — | 3.93 | 0.20 | 0.06 | 71.97 | — | 150 | 15.97 | — | 3.93 | — | — | — |
| 208 | 13.49 | — | 3.67 | 0.16 | 0.06 | 69.07 | 8.10 | — | — | — | | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 24 | 1740 | 154 | 2 | 25 | Sw 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| Sw | 3 | 1006.8 | 29.8 | | W | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$– P μg-at/L | $NO_2$– N μg-at/L | $SiO_2$– Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D–T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.72 | 33.51 | 4.16 | 0.10 | 0 | 29.08 | 8.72 | 0 | 29.72 | 33.51 | 4.16 | 20.72 | 706 | 0.000 |
| 10 | 29.72 | 33.42 | 4.16 | 0 | 0 | 48.71 | 8.40 | 10 | 29.72 | 33.42 | 4.16 | 20.66 | 711 | 0.071 |
| 20 | 29.53 | 33.52 | 4.16 | 0 | 0 | 30.53 | 8.35 | 20 | 29.53 | 33.52 | 4.61 | 20.80 | 698 | 0.141 |
| 30 | 28.75 | 33.77 | 4.33 | 0 | 0 | 52.34 | 8.63 | 30 | 28.75 | 33.77 | 4.33 | 21.25 | 655 | 0.209 |
| 50 | 24.94 | 34.39 | 4.70 | 0 | 0 | 45.80 | 8.23 | 50 | 24.94 | 34.39 | 4.70 | 22.92 | 495 | 0.325 |
| 75 | 22.23 | 34.59 | 4.14 | 0.03 | 0.01 | 42.89 | 8,18 | 75 | 22.23 | 34.59 | 4.14 | 23.86 | 405 | 0.438 |
| 100 | 20.09 | 34.67 | 3.78 | 0 | 0.02 | 58.16 | 8.50 | 100 | 20.09 | 34.67 | 3.78 | 24.51 | 344 | 0.352 |
| 125 | 17.18 | 34.72 | 3.78 | 0.36 | 0 | 39.99 | 8.15 | 125 | 17.18 | 34.72 | 3.78 | 25.28 | 270 | 0.610 |
| 150 | 15.42 | 34.68 | 3.76 | 0.04 | 0.06 | 15.43 | 8.26 | 150 | 15.42 | 34.68 | 376 | 25.65 | 234 | 0.674 |

| St No. | Date | Time | Depth | Water Color | water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 24 | 1325 | 128 | 2 | 26 | Wsw 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| Wsw | 3 | 1006.6 | 30.3 | | Cc | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T °C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T °C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.92 | 32.99 | 4.23 | 0.01 | — | 34.17 | 8.18 | 0 | 29.92 | 32.99 | 4.23 | 20.27 | 749 | 0.000 |
| 10 | 29.85 | 33.01 | 4.14 | 0 | — | 41.44 | 8.68 | 10 | 29.85 | 33.01 | 4.14 | 20.31 | 745 | 0.075 |
| 20 | 29.73 | 33.27 | 4.32 | 0 | — | 50.89 | 8.22 | 20 | 29.73 | 33.27 | 4.32 | 20.55 | 723 | 0.148 |
| 30 | 27.47 | 33.63 | 4.72 | 0.10 | — | 42.17 | 8.60 | 30 | 27.47 | 33.63 | 4.72 | 21.56 | 626 | 0.216 |
| 50 | 22.44 | 34.42 | 4.34 | 0.01 | — | 29.08 | 8.30 | 50 | 22.44 | 34.42 | 4.34 | 25.68 | 423 | 0.321 |
| 75 | 20.31 | 34.71 | 4.88 | 0.14 | — | 66.88 | 8.40 | 75 | 20.31 | 34.71 | 4.88 | 24.48 | 346 | 0.418 |
| 100 | 17.96 | 34.59 | 3.55 | 0.50 | — | 48.71 | 8.02 | 100 | 17.96 | 34.59 | 3.55 | 24.98 | 298 | 0.499 |
| 125 | 15.46 | 34.63 | 3.67 | 0.56 | — | 43.62 | 8.45 | 125 | 15.46 | 34.63 | 3.67 | 25.61 | 239 | 0.567 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 14 | 24 | 0840 | 114 | 2 | 28 | Wsw 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| Wsw | 3 | 1006.1 | 30.0 | | W | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.33 | 31.42 | 4.23 | 0.08 | 0 | 63.25 | 8.33 | 0 | 29.33 | 31.42 | 4.23 | 19.29 | 843 | 0.000 |
| 10 | 28.42 | 31.65 | 4.70 | 0.18 | 0 | 65.43 | 8.40 | 10 | 28.42 | 31.65 | 4.70 | 19.77 | 797 | 0.082 |
| 20 | 20.72 | — | 5.45 | 0.11 | 0 | 55.98 | 8.30 | 20 | 20.72 | — | 5.45 | 22.46 | 539 | 0.149 |
| 30 | 17.79 | — | 5.49 | 0.11 | 0.01 | 50.16 | 8.25 | 30 | 17.79 | — | 5.49 | 23.74 | 417 | 0.197 |
| 50 | 16.40 | 34.32 | 3.74 | — | — | — | 8.35 | 50 | 16.40 | 34.32 | 3.74 | 25.15 | 282 | 0.267 |
| 75 | 14.00 | 34.10 | 3.61 | 0.18 | 0.02 | 76.34 | 8.30 | 75 | 14.00 | 34.10 | 4.61 | 25.51 | 248 | 0.334 |
| 100 | 14.21 | 34.17 | 4.37 | 0.20 | 0.02 | 47.26 | 8.30 | 100 | 14.21 | 34.17 | 4.37 | 25.52 | 247 | 0.396 |
| 111 | 14.58 | 34.37 | 3.95 | 0.36 | — | 71.97 | 8.22 | — | — | — | — | — | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 16 | 24 | 0445 | 100 | | | Wsw 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| Wsw | 3 | 1004.4 | 29.3 | | Ac | 8 | c |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.44 | 32.06 | 4.12 | 0.17 | 0 | 32.72 | — | 0 | 29.44 | 32.06 | 4.12 | 19.73 | 801 | 0.000 |
| 10 | 29.48 | 32.02 | 4.50 | 0.07 | 0.02 | 19.63 | 8.40 | 10 | 29.48 | 32.02 | 4.50 | 19.69 | 805 | 0.080 |
| 20 | 27.02 | 32.07 | 4.96 | 0 | 0.01 | 10.91 | 8.46 | 20 | 27.02 | 32.07 | 4.96 | 20.53 | 724 | 0.157 |
| 30 | 17.21 | 34.09 | 6.23 | 0.21 | 0 | 29.81 | 8.22 | 30 | 17.21 | 34.09 | 6.23 | 24.78 | 317 | 0.209 |
| 50 | 13.88 | 34.09 | 4.41 | 0.11 | — | 27.63 | 8.27 | 50 | 13.88 | 34.09 | 4.41 | 25.52 | 247 | 0.266 |
| 75 | 14.29 | 34.25 | 6.42 | 0.49 | 0 | 34.90 | 7.83 | 75 | 14.29 | 34.25 | 6.42 | 25.56 | 243 | 0.327 |
| 97 | 14.21 | 34.27 | 6.05 | 0.31 | — | 69.07 | 8.22 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 18 | 23 | 2345 | 80 | | | Sw 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| Sw | 3 | 1004.5 | 29.5 | | As | 8 | c |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.32 | 28.54 | 5.10 | — | 0 | — | 8.38 | 0 | 29.32 | 28.54 | 5.10 | 17.15 | 1050 | 0.000 |
| 10 | 29.29 | 30.72 | 5.10 | 0 | 0 | 21.08 | 8.40 | 10 | 29.29 | 30.72 | 5.10 | 18.79 | 892 | 0.097 |
| 20 | 22.70 | 33.01 | 5.39 | 0.03 | 0 | 25.45 | 8.60 | 20 | 22.70 | 33.01 | 5.39 | 22.53 | 532 | 0.168 |
| 30 | 17.29 | 33.03 | 7.38 | 0 | 0 | 19.63 | 8.55 | 30 | 17.29 | 33.03 | 7.38 | 23.96 | 396 | 0.215 |
| 50 | 11.89 | 33.29 | 6.35 | 0 | 0.10 | 18.18 | 8.45 | 50 | 11.89 | 33.29 | 6.35 | 25.30 | 268 | 0.281 |
| 75 | 11.92 | 33.13 | | 0.24 | 0.06 | — | 8.45 | 75 | 11.92 | 33.13 | — | 25.18 | 280 | 0.350 |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 20 | 23 | 1930 | 60 | | | Sw 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| Sw | 3 | 1022.0 | 29.4 | | As | 3 | Bc |

| OBSERVED | | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z *m* | T C | S ‰ | $O_2$ % | $PO_4$-P $\mu$g-at L | $NO_2$-N $\mu$g-at L | $SiO_2$-Si $\mu$g-at L | pH | Z *m* | T C | S ‰ | $O_2$ % | $\sigma t$ | $\frac{D}{10}$ $\frac{T}{cm^3}$ g | $\Delta D$ dyn. m | |
| 0 | 29.19 | 27.62 | 5.00 | 0.10 | 0.02 | 22.54 | 8.35 | 0 | 29.19 | 27.62 | 5.00 | 16.50 | 1112 | 0.000 | |
| 10 | 27.20 | 30.51 | 4.98 | 0 | 0 | 15.27 | 8.30 | 10 | 27.20 | 30.51 | 4.98 | 19.31 | 842 | 0.098 | |
| 20 | 18.36 | 31.91 | 5.39 | 0.08 | 0.04 | 19.63 | 8.51 | 20 | 18.36 | 31.91 | 5.39 | 22.84 | 503 | 0.165 | |
| 30 | 16.97 | 32.35 | 4.98 | 0.07 | 0 | 17.45 | 8.43 | 30 | 16.97 | 32.35 | 4.98 | 23.51 | 438 | 0.212 | |
| 50 | 13.31 | — | — | 0.03 | 0.06 | 27.63 | 8.40 | 50 | 13.31 | – | – – | – – | – | – | |

# 316선 해 양 관 측 성 적

## Oceanogeaphic Data, Line 316

2월 (February) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 27 | 1040 | 230 | 5 | 12 | NNW5 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weeterh |
|---|---|---|---|---|---|---|---|
| Diretion | Force | | Dry | Wet | Type | Amount | |
| NNW | 5 | 1022.0 | 8.0 | | Cu | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | Hp | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 15.61 | 34.71 | 5.32 | 0.25 | 0.18 | 35.62 | 8.10 | 0 | 15.61 | 34.71 | 5.32 | 25.63 | 237 | 0.000 |
| 9 | 15.67 | 34.72 | 5.31 | 0.21 | 0.16 | 55.98 | 7.98 | 10 | 15.66 | 34.72 | 5.31 | 25.63 | 237 | 0.024 |
| 19 | 15.63 | 34.72 | 5.31 | 0.27 | 0.13 | 61.07 | — | 20 | 15.62 | 34.72 | 5.32 | 25.63 | 237 | 0.047 |
| 28 | 15.56 | 34.72 | 5.41 | 0.21 | 0.15 | 50.89 | — | 30 | 15.62 | 34.71 | 5.36 | 25.63 | 236 | 0.071 |
| 47 | 15.64 | 34.71 | 5.43 | 0.21 | 0.08 | 55.98 | — | 50 | 15.64 | 34.70 | 5.42 | 25.63 | 239 | 0.118 |
| 70 | 15.65 | 34.71 | 5.31 | 0.24 | 0.08 | 67.61 | — | 75 | 15.64 | 34.71 | 5.31 | 25.63 | 239 | 0.178 |
| 93 | 15.64 | 34.73 | 5.32 | 0.28 | 0.06 | 70.52 | — | 100 | 15.64 | 34.73 | 5.33 | 25.64 | 238 | 0.238 |
| 96 | 15.69 | 34.71 | 5.31 | 0.29 | 0.11 | 59.61 | 7.92 | 125 | 15.58 | 34.71 | 5.23 | 25.64 | 239 | 0.298 |
| 115 | 15.62 | 34.73 | 5.31 | 0.21 | 0.12 | 61.07 | 8.28 | 150 | 15.38 | 34.68 | 5.01 | 25.66 | 238 | 0.357 |
| 151 | 15.37 | 34.68 | 5.00 | 0.19 | 0.10 | 74.15 | 8.03 | — | — | — | — | — | — | — |
| 170 | 15.10 | 34.66 | 4.96 | — | — | 77.79 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 27 | 1430 | 155 | 4 | 17 | NNW5 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 5 | 1021.0 | 9.9 | | Cu | 9 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | dt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 17.07 | 34.76 | 5.67 | 0.21 | 0.14 | 50.16 | 8.00 | 0 | 17.07 | 34.76 | 5.67 | 25.33 | 265 | 0.000 |
| 9 | 17.08 | 34.76 | 5.31 | 0.24 | 0.12 | 48.71 | 7.85 | 10 | 17.19 | 34.77 | 5.72 | 25.31 | 267 | 0.027 |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 20 | 17.02 | 34.77 | 5.74 | 25.30 | 268 | 0.053 |
| 29 | 17.11 | 34.76 | 5.24 | 0.31 | 0.18 | 50.89 | 7.90 | 30 | 17.30 | 34.78 | 5.72 | 25.29 | 269 | 0.080 |
| 49 | 17.07 | 34.77 | [illegible] | [illegible] | [illegible] | [illegible] | 7.73 | 50 | 17.23 | 34.78 | 5.60 | 25.31 | 268 | 0.133 |
| 74 | [illegible] | [illegible] | [illegible] | [illegible] | 0.12 | 63.98 | 7.80 | 75 | 16.90 | 34.74 | 5.27 | 25.36 | 262 | 0.199 |
| 98 | [illegible] | [illegible] | 4.80 | [illegible] | [illegible] | 75.60 | 7.80 | 100 | 16.35 | 34.70 | 4.79 | 25.45 | 254 | 0.265 |
| 122 | [illegible] | [illegible] | [illegible] | [illegible] | 0.08 | 81.42 | 7.90 | 125 | 16.07 | 34.70 | 4.91 | 25.52 | 247 | 0.328 |
| — | — | — | — | — | — | — | — | 150 | 14.99 | 34.65 | 5.34 | 25.72 | 228 | 0.388 |
| 143 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

| St No. | Date | Time | Depth | Water Color | Weter Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 27 | 2030 | 128 | | | N5 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 4 | 1024.3 | 9.2 | | Cu | 5 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m | |
| 0 | 17.13 | 34.76 | 5.41 | 0.38 | 0.18 | 51.62 | 7.99 | 0 | 17.13 | 34.76 | 5.41 | 25.32 | 266 | 0.000 | |
| 9 | 17.18 | 34.74 | 5.41 | 0.73 | 0.14 | 53.80 | 7.98 | 10 | 17.18 | 34.74 | 5.41 | 25.29 | 269 | 0.027 | |
| 19 | 17.20 | 34.76 | 5.41 | 0.29 | 0.15 | 50.89 | 7.90 | 20 | 17.20 | 34.76 | 5.41 | 24.30 | 268 | 0.054 | |
| 28 | 17.20 | 34.77 | 5.41 | 0.35 | 0.17 | 58.89 | 7.85 | 30 | 17.20 | 34.77 | 5.41 | 25.31 | 267 | 0.081 | |
| 47 | 17.21 | 34.77 | 5.41 | 0.60 | 0.16 | 64.70 | 7.80 | 50 | 17.20 | 34.76 | 5.42 | 25.31 | 268 | 0.134 | |
| 70 | 17.18 | 34.76 | 5.40 | 0.28 | 0.06 | 71.25 | 7.88 | 75 | 17.23 | 34.76 | 5.26 | 25.29 | 269 | 0.202 | |
| 94 | 17.20 | 34.76 | 4.80 | 0.20 | 0.06 | 77.79 | 7.80 | 100 | 16.99 | 34.74 | 4.81 | 25.34 | 264 | 0.269 | |
| 120 | 15.67 | 34.68 | 5.30 | 0.27 | 0.04 | 83.61 | 7.63 | — | — | — | — | — | — | — | |

| St INo. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 14 | 28 | 0025 | 110 | | | NW5 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 6 | 10255 | 8.1 | | Cu | 8 | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m | |
| 0 | 16.01 | 34.73 | 5.56 | 0.31 | 0.15 | 55.25 | 7.58 | 0 | 16.01 | 34.73 | 5.56 | 25.56 | 244 | 0.000 | |
| 9 | 15.99 | 34.74 | 5.42 | 0.35 | 0.20 | 54.53 | — | 10 | 15.99 | 34.74 | 5.41 | 25.57 | 243 | 0.024 | |
| 19 | 16.05 | 34.74 | 5.51 | 0.38 | 0.24 | 66.16 | — | 20 | 16.01 | 34.74 | 5.38 | 25.55 | 243 | 0.049 | |
| 29 | 16.04 | 34.74 | 5.41 | 0.41 | 0.16 | 70.52 | — | 30 | 16.04 | — | 5.41 | 25.56 | — | — | |
| 48 | 16.03 | 34.75 | 5.44 | 0.29 | 0.09 | 74.88 | — | 50 | 16.06 | — | 5.47 | 25.57 | — | — | |
| 72 | 16.04 | 34.77 | 5.48 | 0.34 | 0.06 | 82.88 | — | 75 | 16.06 | — | 5.65 | — | — | — | |
| 97 | 16.03 | — | 5.90 | 0.36 | 0.07 | 73.43 | — | — | — | — | — | — | — | — | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 16 | 28 | 0445 | 82 | | | NNE5 | 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | 1026.9 | 6.6 | | Cu | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 12.34 | 34.02 | 6.10 | 0.38 | 0.18 | 61.80 | 7.62 | 0 | 12.34 | 34.02 | 6.10 | 25.78 | 222 | 0.000 |
| 9 | 21.39 | 33.96 | 6.10 | 0.35 | 0.18 | 66.80 | 7.69 | 10 | 12.39 | 33.94 | 6.10 | 25.72 | 222 | 0.023 |
| 19 | 12.19 | 33.95 | 6.12 | 0.27 | 0.11 | 73.43 | 7.63 | 20 | 12.39 | 33.74 | 6.15 | 25.56 | 246 | 0.046 |
| 29 | 12.36 | 33.45 | 6.22 | 0.22 | 0.15 | 77.06 | 7.70 | 30 | 12.35 | | | | | |
| 48 | 12.36 | 33.99 | 6.29 | 0.35 | 0.04 | 82.42 | 7.80 | 50 | 12.92 | | | | | |
| 72 | 11.92 | 33.34 | 6.22 | 0.01 | 0.06 | 84.33 | 7.87 | 75 | 11.92 | | | | | |
| 76 | 11.91 | — | — | — | — | — | — | — | — | | | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 18 | 28 | 0940 | 62 | 6 | 9 | NNW3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 3 | 1028.8 | 7.4 | | Cu | 7 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 9.32 | 33.32 | 6.43 | 0.34 | 0.16 | 51.62 | 7.72 | 0 | 9.32 | 33.32 | 6.43 | 25.77 | 223 | 0.000 |
| 9 | 9.31 | 33.34 | 6.63 | 0.99 | 0.17 | 49.44 | 7.60 | 10 | 9.31 | 33.34 | 6.64 | 25.79 | 221 | 0.022 |
| 19 | 9.34 | 33.32 | 6.61 | 0.56 | 0.14 | 53.80 | 7.73 | 20 | 9.32 | 33.34 | 6.63 | 25.79 | 221 | 0.044 |
| 29 | 9.36 | 33.33 | 6.42 | 0.73 | 0.08 | 56.71 | 7.65 | 30 | | | | | | |
| 48 | 9.31 | 33.32 | 6.43 | 1.09 | 0.06 | 66.88 | — | 50 | | | | | | |
| 56 | 9.40 | 33.33 | 6.43 | 1.22 | 0.07 | 65.43 | 7.70 | | | | | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 20 | 28 | 1300 | 45 | 7 | 1.5 | NNW2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 1 | 1028.0 | 7.6 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 7.77 | 32.29 | 6.29 | 0.27 | 0.10 | 22.54 | 7.90 | 0 | 7.77 | 32.29 | 6.29 | 25.20 | 277 | 0.000 |
| 10 | 7.36 | 32.22 | 6.83 | 0.28 | 0.08 | 25.45 | 7.93 | 10 | 7.36 | 32.22 | 6.83 | 25.31 | 277 | 0.028 |
| 20 | 7.32 | 32.23 | 6.84 | 0.33 | 0.07 | 28.35 | 7.90 | 20 | 7.32 | 32.23 | 6.84 | 25.22 | 276 | 0.055 |
| 30 | 7.33 | 32.25 | 6.77 | 0.45 | 0.09 | 19.81 | 7.91 | 30 | 7.33 | 32.25 | 6.77 | 25.23 | 274 | 0.083 |
| 42 | 7.28 | 32.35 | 6.40 | 0.49 | 0.07 | 31.99 | 7.92 | — | — | — | — | — | — | — |

8월 (August) 조사선 (Han Ra San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 18 | 1340 | 730 | 2 | 29 | NNE2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1010.1 | 29.25 | | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.82 | 32.91 | 4.53 | — | 0.34 | 33.44 | — | 0 | 29.82 | 32.91 | 4.53 | 20.64 | 752 | 0.000 |
| 10 | 28.85 | 32.87 | 4.72 | — | 0.09 | 40.71 | 8.00 | 10 | 28.85 | 32.87 | 4.72 | 20.54 | 723 | 0.074 |
| 20 | 27.02 | 33.66 | 4.61 | 0.11 | 0.07 | 37.08 | — | 20 | 27.02 | 33.66 | 4.61 | 21.72 | 610 | 0.140 |
| 30 | 26.44 | 33.92 | 4.70 | 0.18 | 0.07 | 45.07 | 7.45 | 30 | 26.44 | 33.92 | 4.70 | 22.11 | 573 | 0.200 |
| 50 | 24.42 | 34.20 | 4.91 | 0.25 | 0.14 | 43.62 | 7.90 | 50 | 24.42 | 34.20 | 4.91 | 23.12 | 476 | 0.305 |
| 75 | 20.27 | 34.69 | 4.04 | 0.34 | 0.07 | 50.16 | 8.00 | 75 | 20.27 | 34.69 | 4.04 | 24.47 | 347 | 0.408 |
| 100 | 18.88 | 34.66 | 3.93 | 0.31 | 0.14 | 42.89 | 7.91 | 100 | 18.88 | 34.66 | 3.93 | 24.81 | 314 | 0.492 |
| 125 | 17.43 | 34.63 | 4.03 | 0.35 | 0.08 | 42.44 | 7.96 | 125 | 17.43 | 34.63 | 4.03 | 25.15 | 283 | 0.567 |
| 150 | 16.25 | 34.64 | 4.12 | — | 0.08 | — | 8.00 | 150 | 16.25 | 34.64 | 4.12 | 25.43 | 256 | 0.636 |
| 250 | 14.09 | 34.57 | 3.76 | 0.39 | 0.14 | 54.53 | 7.80 | 200 | 14.09 | 34.57 | 3.76 | 25.85 | 216 | 0.756 |
| 250 | 12.95 | 34.52 | 3.64 | 0.43 | 0.14 | 52.34 | 7.90 | 250 | 12.05 | 34.52 | 3.64 | 26.05 | 197 | 0.862 |
| 300 | 11.73 | 34.46 | 3.80 | 0.74 | 0.17 | 38.53 | 7.92 | 300 | 11.73 | 34.46 | 3.80 | 26.24 | 178 | 0.956 |
| 400 | 9.80 | 34.44 | 3.07 | 1.06 | 0.24 | 63.25 | 7.82 | 400 | 9.80 | 34.44 | 3.07 | 26.56 | 148 | 1.130 |
| 500 | 7.73 | 34.17 | 2.40 | 1.20 | 0.20 | 106.87 | 7.65 | 500 | 7.73 | 34.17 | 2.40 | 26.68 | 137 | 1.281 |
| 600 | 6.58 | 34.41 | 2.59 | 1.30 | 0.07 | 93.78 | 8.22 | 600 | 6.58 | 34.41 | 2.59 | 27.03 | 104 | 1.410 |
| 725 | 6.18 | 34.43 | 2.78 | 1.44 | 0.06 | 98.15 | 8.29 | 700 | 6.16 | 34.45 | 2.75 | 27.12 | 95 | 1.519 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 18 | 1930 | 210 | | | NE2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1009.0 | 29.3 | | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 29.67 | 32.90 | 4.50 | 0.06 | 0.04 | 29.81 | 8.22 | 0 | 29.67 | 32.90 | 4.50 | 20.29 | 947 | 0.000 |
| 10 | 29.77 | 33.23 | 4.63 | 0.15 | 0.05 | 34.17 | 7.72 | 10 | 29.77 | 33.23 | 4.63 | 20.62 | 696 | 0.072 |
| 20 | 27.50 | 33.61 | 4.79 | 0.10 | 0.01 | 31.99 | 7.65 | 20 | 27.50 | 33.61 | 4.79 | 21.53 | 628 | 0.136 |
| 30 | 25.68 | 34.10 | 4.72 | 0.10 | — | 28.35 | 7.80 | 30 | 25.68 | 34.10 | 4.72 | 22.47 | 538 | 0.197 |
| 50 | 23.51 | 34.35 | 4.31 | 0.11 | 0.01 | 50.89 | 7.78 | 50 | 23.51 | 34.35 | 4.31 | 13.32 | 457 | 0.297 |
| 75 | 21.84 | 34.57 | 4.22 | 0.11 | 0.01 | 43.62 | 7.50 | 75 | 21.84 | 34.57 | 4.22 | 23.96 | 396 | 0.404 |
| 100 | 19.48 | 34.68 | 4.12 | 0.04 | 0.02 | 42.17 | 7.82 | 100 | 19.48 | 34.68 | 4.12 | 24.67 | 328 | 0.495 |
| 125 | 17.97 | 34.68 | 4.03 | 0.11 | 0.06 | 49.44 | 8.08 | 125 | 17.77 | 34.68 | 4.03 | 25.05 | 292 | 0.573 |
| 150 | 16.66 | 34.67 | 3.83 | 0.12 | 0.04 | 49.71 | 7.72 | 150 | 16.66 | 34.67 | 3.83 | 26.22 | 181 | 0.633 |
| 200 | 14.10 | 34.63 | 3.77 | 0.41 | 0.14 | 57.43 | — | 200 | 14.10 | 34.63 | 3.77 | 25.90 | 211 | 0.734 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 19 | 0140 | 150 | | | N3 | N2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 10100 | 28.5 | | Ac | 6 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 29.63 | 33.38 | 4.49 | 0 | 0 | 32.72 | 7.83 | 0 | 29.63 | 33.38 | 4.49 | 20.66 | 712 | 0.000 |
| 10 | 29.58 | 33.39 | 4.31 | 0 | 0 | 34.17 | 8.28 | 10 | 29.58 | 33.39 | 4.31 | 20.68 | 710 | 0.071 |
| 20 | 29.07 | 33.50 | 4.49 | 0 | 0 | 11.63 | 8.48 | 20 | 29.07 | 33.50 | 4.49 | 20.94 | 685 | 0.141 |
| 30 | 28.39 | 33.65 | 4.47 | — | 0 | 32.72 | 8.40 | 30 | 28.39 | 33.65 | 4.47 | 21.27 | 653 | 0.208 |
| 50 | 24.88 | 34.34 | 5.27 | 0.07 | 0 | 42.17 | — | 50 | 24.88 | 34.34 | 5.27 | 22.90 | 497 | 0.323 |
| 75 | 22.32 | 34.59 | 4.12 | 0.08 | 0.06 | 35.62 | 8.30 | 75 | 22.32 | 34.59 | 4.12 | 23.83 | 408 | 0.437 |
| 100 | 19.50 | 34.70 | 3.85 | 0.14 | 0 | 50.89 | — | 100 | 19.50 | 34.70 | 3.85 | 24.68 | 327 | 0.530 |
| 125 | 16.88 | 34.70 | 3.66 | 0.35 | 0.01 | 56.71 | 8.02 | 125 | 16.88 | 34.70 | 3.66 | 25.33 | 265 | 0.604 |
| 147 | 15.29 | 34.67 | 4.31 | 0.38 | 0 | 28.35 | 7.75 | — | — | — | — | — | — | — |

| Ss No | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 19 | 0545 | 127 | 3 | 20 | ESE | NE2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1010.4 | 2.86 | | Ac | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 29.71 | 32.07 | — | 0 | 0 | 15.27 | 8.38 | 0 | 29.71 | 32.07 | — | 19.65 | 808 | 0.000 |
| 10 | 29.74 | 32.06 | — | 0.03 | 0 | 17.45 | 8.35 | 10 | 29.74 | 32.06 | — | 19.63 | 810 | 0.081 |
| 20 | 29.13 | 33.13 | 4.60 | 0.06 | 0 | 18.18 | 8.32 | 20 | 29.13 | 33.13 | 4.60 | 20.64 | 713 | 0.157 |
| 30 | 26.53 | 33.79 | 5.08 | 0.08 | 0 | 15.99 | — | 30 | 26.58 | 33.79 | 5.08 | 11.96 | 586 | 0.222 |
| 50 | 19.73 | 34.31 | 3.87 | 0.11 | 0 | 32.72 | 8.32 | 50 | 19.78 | 34.31 | 3.87 | 24.31 | 352 | 0.317 |
| 75 | 16.40 | 34.33 | 4.50 | 0.17 | 0 | 24.72 | 8.32 | 75 | 16.40 | 34.33 | 4.50 | 25.16 | 282 | 0.398 |
| 100 | 16.05 | 34.24 | 5.44 | 0.32 | 0 | 23.99 | 8.25 | 100 | 16.05 | 34.24 | 5.44 | 25.17 | 281 | 0.469 |
| 125 | 16.19 | 34.45 | — | 0.57 | 0.06 | 25.45 | 8.28 | 125 | 16.19 | 34.45 | — | 25.30 | 268 | 0.539 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 14 | 19 | 1035 | 108 | 2 | 24 | E3 | NE2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1011.0 | 29.3 | | Ci | 4 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 28.88 | 31.69 | — | 0.07 | 0 | 19.63 | 8.67 | 0 | 28.88 | 31.69 | — | 19.65 | 809 | 0.000 |
| 10 | 28.90 | 31.67 | 5.46 | 0.14 | 0 | 25.45 | 8.60 | 10 | 28.90 | 31.67 | 5.46 | 19.62 | 811 | 0.081 |
| 20 | 28.11 | 31.84 | 6.61 | 0.18 | 0.02 | 24.72 | 8.30 | 20 | 28.11 | 31.84 | 6.61 | 20.01 | 774 | 0.160 |
| 30 | 28.70 | 33.84 | 6.54 | 0.24 | 0.02 | 18.18 | 8.23 | 30 | 28.70 | 33.68 | 6.54 | 21.31 | 649 | 0.237 |
| 50 | 14.28 | 34.07 | 5.56 | 0.27 | 0.02 | 23.26 | — | 50 | 14.28 | 34.07 | 5.56 | 25.43 | 256 | 0.392 |
| 75 | 14.98 | 34.40 | — | 0.25 | 0 | 25.45 | 8.12 | 75 | 14.98 | 34.40 | — | 25.53 | 246 | 0.385 |
| 100 | 15.02 | 34.42 | — | 0.31 | 0 | 32.26 | — | 100 | 15.06 | 34.43 | — | 25.54 | 246 | 0.443 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 16 | 23 | 1500 | 95 | | | Sw2 | Sw1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1003.8 | 29.3 | | Ac | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 29.41 | 30.62 | 5.50 | 0.07 | 0 | 31.24 | 8.52 | 0 | 29.41 | 30.62 | 5.50 | 18.67 | 943 | 0.000 |
| 10 | 29.48 | 31.11 | 5.28 | 0.06 | 0.11 | 29.08 | 8.43 | 10 | 29.48 | 31.11 | 5.28 | 19.01 | 870 | 0.089 |
| 20 | 23.85 | 32.89 | 6.23 | 0.14 | — | 21.03 | — | 20 | 23.85 | 32.89 | 6.23 | 22.11 | 572 | 0.161 |
| 30 | 15.22 | 33.26 | 5.85 | 0.29 | — | 29.81 | 8.30 | 30 | 15.22 | 33.26 | 5.85 | 24.61 | 334 | 0.206 |
| 50 | 12.63 | 33.52 | 5.65 | 0.38 | — | 13.81 | 8.22 | 50 | 12.63 | 33.52 | 5.65 | 25.34 | 264 | 0.266 |
| 75 | 13.01 | 33.71 | 5.75 | 0.45 | 0.03 | 28.35 | 8.11 | 75 | 13.01 | 33.71 | 5.75 | 25.41 | 258 | 0.332 |
| 93 | 13.02 | 33.72 | — | 0.24 | 0.07 | 15.27 | 8.33 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 18 | 23 | 1100 | 63 | 3 | 19 | Sw 3 | Sw 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| Sw | 3 | 1003.9 | 29.8 | | Cc | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 29.71 | 28.11 | 4.77 | 0.08 | 0.05 | 17.45 | 8.55 | 0 | 29.71 | 28.12 | 4.77 | 16.69 | 1094 | 0.000 |
| 10 | 26.82 | 29.66 | 5.27 | 0.04 | 0.03 | 14.51 | 8.34 | 10 | 26.82 | 29.66 | 5.27 | 19.79 | 691 | 0.099 |
| 20 | 19.17 | 31.50 | 6.13 | 0.07 | 0.02 | 15.96 | 8.12 | — | — | — | 6.13 | 22.46 | 330 | 0.176 |
| 30 | 15.73 | 32.46 | 5.41 | 0.21 | 0.06 | 20.36 | 8.21 | 30 | 15.73 | 32.46 | 5.41 | 25.90 | 402 | 0.217 |
| 50 | 13.20 | 32.74 | 4.62 | 0.32 | 0.11 | 15.27 | 8.25 | 50 | 13.20 | 32.74 | 4.62 | 24.62 | 333 | 0.291 |
| 60 | 13.17 | 32.74 | 5.22 | 0.04 | 0.03 | 13.09 | 8.40 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 20 | 23 | 1530 | 44 | 4 | 11 | SW3 | SSW3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 4 | 1002.9 | 29.6 | | Cs | 9 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | $\sigma t$ | D-T $10^{-5}$ cm /g | $\triangle$D dyn. m |
| 0 | 29.86 | 27.53 | 4.60 | 0.11 | 0.02 | 25.45 | 8.30 | 0 | 29.80 | 27.53 | 4.60 | 16.21 | 1141 | 0.000 |
| 10 | 28.38 | 30.59 | 5.16 | 0.07 | 0 | 21.81 | 8.56 | 10 | 28.38 | 30.59 | 5.16 | 18.98 | 873 | 0.101 |
| 20 | 19.55 | 31.92 | 6.61 | 0.10 | 0.02 | — | 8.36 | 20 | 19.55 | 31.92 | 6.61 | 22.61 | 525 | 0.171 |
| 30 | 19.51 | 32.20 | 6.90 | 0.17 | 0 | — | — | 30 | 19.51 | 32.20 | 6.90 | 22.77 | 509 | 0.222 |
| 50 | 17.45 | 32.21 | 5.37 | 0.13 | 0 | — | 8.50 | — | — | — | — | — | — | — |

# 서 해 해 양 조 사 성 적

# OCEANOGRAPHIC OBSERVATIONS
# WESTERN WATERS

1 9 6 7

# 306선 해 양 관 측 성 적

## Oceanographic Data, Line 306

3월(March) 조사선(Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 9 | 1825 | 25 | | 0.5 | W 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | 1039.0 | 2.8 | | Ci-St | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 1.95 | 31.81 | 6.63 | 0.57 | 0.21 | 31.99 | 7.98 | 0 | 1.95 | 31.81 | 6.63 | 25.45 | 254 | 0.000 |
| 10 | 1.96 | 31.81 | 6.57 | 1.02 | 0.19 | 32.72 | 8.05 | 10 | 1.96 | 31.81 | 6.57 | 25.45 | 254 | 0.025 |
| 22 | 1.85 | 31.83 | 6.65 | 1.25 | 0.29 | 42.17 | 8.22 | 20 | 1.87 | 31.82 | 6.63 | 25.46 | 253 | 0.051 |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 9 | 1700 | 12 | 9 | 1 | W 0 | W 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | 1040.0 | 4.0 | | Ci St | 9 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 2.72 | 31.83 | 6.74 | 0.24 | 0.06 | 29.08 | 8.50 | 0 | 2.72 | 31.83 | 6.74 | 25.40 | 258 | 0.000 |
| 10 | 2.32 | 31.70 | 6.70 | 0.42 | 0.13 | 30.53 | 8.30 | 10 | 2.32 | 31.70 | 6.70 | 25.33 | 265 | 0.026 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 9 | 0630 | 18 | | | W 0 | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1041.0 | 1.8 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 2.37 | 31.87 | 6.75 | 0.18 | 0.08 | 19.63 | 7.92 | 0 | 2.37 | 31.87 | 6.75 | 25.46 | 253 | 0.000 |
| 10 | 2.24 | 31.86 | 6.73 | 0.23 | 0.07 | 21.07 | 8.24 | 10 | 2.24 | 31.86 | 6.73 | 25.47 | 252 | 0.021 |
| 20 | 1.99 | 31.82 | 6.74 | 0.22 | 0.13 | 21.81 | 8.14 | 20 | 1.99 | 31.82 | 6.74 | 25.45 | 254 | 0.055 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 9 | 0750 | 43 | 6 | 3 | | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1041.0 | 1.7 | | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 2.30 | 31.90 | 7.21 | 0.01 | 0.08 | 22.54 | 8.18 | 0 | 2.30 | 31.90 | 7.21 | 25.49 | 250 | 0.000 |
| 10 | 2.31 | 31.81 | 6.75 | 0.08 | 0.19 | 24.00 | 8.28 | 10 | 2.31 | 31.81 | 6.75 | 25.42 | 257 | 0.025 |
| 20 | 2.49 | 31.83 | 6.61 | 0.07 | 0.05 | 23.17 | 8.17 | 20 | 2.49 | 31.83 | 6.61 | 25.42 | 256 | 0.051 |
| 30 | 3.05 | 32.22 | 6.55 | 0.18 | 0.04 | 27.63 | 8.42 | 30 | 3.05 | 31.22 | 6.55 | 24.89 | 307 | 0.079 |
| 40 | 3.05 | 32.24 | 6.50 | 0.24 | 0.10 | 29.08 | 8.29 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 9 | 0920 | 51 | 7 | 4 | | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1041.0 | 2.8 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 2.78 | 32.01 | 6.65 | — | — | — | 8.15 | 0 | 2.78 | 32.01 | 6.65 | 25.54 | 245 | 0.000 |
| 10 | 2.80 | 31.97 | 6.73 | 0.10 | 0.02 | 18.18 | 8.10 | 10 | 2.80 | 31.87 | 6.73 | 25.43 | 256 | 0.256 |
| 20 | 2.43 | 31.97 | 6.73 | 0.17 | 0.05 | 21.08 | 8.32 | 20 | 2.43 | 31.97 | 6.73 | 25.54 | 245 | 0.050 |
| 30 | 3.27 | 32.30 | 6.45 | 0.20 | 0.06 | 24.72 | 8.20 | 30 | 3.27 | 32.30 | 6.45 | 25.73 | 227 | 0.074 |
| 48 | 3.55 | 32.49 | 6.34 | 0.17 | 0.02 | 25.45 | 8.34 | – | – | – | – | – | – | – |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 9 | 1045 | 59 | 7 | 4 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | 1042.0 | 3.8 | | Ci-St | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 2.95 | 32.10 | 6.78 | 0.08 | 0.12 | 16.72 | 8.30 | 0 | 2.95 | 32.10 | 6.78 | 25.60 | 240 | 0.000 |
| 10 | 2.47 | 32.05 | 6.75 | 0.18 | 0.06 | 18.18 | 8.10 | 10 | 2.47 | 32.05 | 6.35 | 25.60 | 240 | 0.024 |
| 20 | 2.68 | 32.12 | 6.63 | 0.31 | 0.02 | 19.63 | 8.22 | 20 | 2.68 | 32.12 | 6.63 | 25.64 | 236 | 0.048 |
| 30 | 2.66 | 32.16 | 6.46 | 0.22 | 0.02 | 20.36 | 8.32 | 30 | 2.66 | 32.16 | 6.46 | 25.67 | 233 | 0.071 |
| 56 | 3.29 | 32.47 | 6.42 | 0.29 | 0.09 | 21.08 | - - | 50 | 3.05 | 32.37 | 6.38 | 25.81 | 220 | 0.116 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 9 | 1150 | 64 | 6 | 7 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | 1042.0 | 4.8 | | Ci-St | 9 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 3.52 | 32.37 | 6.56 | 0.06 | 0.02 | 18.90 | 8.53 | 0 | 3.52 | 32.37 | 6.56 | 25.77 | 224 | 0.000 |
| 10 | 3.44 | 32.31 | 6.54 | 0.07 | 0.08 | 21.81 | 8.35 | 10 | 3.44 | 32.31 | 6.54 | 25.73 | 228 | 0.023 |
| 20 | 3.46 | 32.36 | 6.48 | 0.14 | 0.01 | 22.54 | 8.53 | 20 | 3.46 | 32.36 | 6.48 | 25.76 | 224 | 0.045 |
| 30 | 3.23 | 32.52 | 6.55 | 0.13 | 0.13 | 23.26 | 8.50 | 30 | 3.23 | 32.52 | 6.55 | 25.91 | 210 | 0.067 |
| 50 | 3.98 | 32.14 | 6.46 | 0.18 | 0.12 | 23.99 | 8.32 | 50 | 3.98 | 32.14 | 6.46 | 25.54 | 245 | 0.112 |
| 61 | 3.97 | 32.54 | 5.96 | 0.27 | 0.06 | 26.89 | 8.58 | — | — | — | — | — | — | — |

8월 (August) 조사선 (Chun Ma San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 21 | 0830 | 21 | 8 | 5 | S 1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1000.0 | 25.8 | | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 24.50 | 31.09 | 4.62 | 0.11 | 0 | 5.09 | — | 0 | 24.50 | 31.09 | 4.62 | 20.57 | 720 | 0.000 |
| 10 | 24.27 | 31.15 | 4.63 | 0.21 | 0 | 21.81 | — | 10 | 24.27 | 31.15 | 4.63 | 20.68 | 710 | 0.072 |
| 19 | 23.98 | — | 4.74 | 0.24 | 0 | 15.99 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 21 | 0725 | 21 | 6 | 5 | S 1 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1008.0 | 25.2 | | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 24.02 | 31.28 | 4.89 | 0.15 | 0 | 17.45 | — | 0 | 24.02 | 31.28 | 4.89 | — | — | — |
| 19 | 23.79 | 31.38 | 4.89 | 0.21 | 0.04 | 10.18 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 21 | 0620 | 20 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 23.50 | 31.56 | 4.72 | 0 | 0.06 | 14.54 | — | 0 | 23.50 | 31.56 | 4.72 | 21.21 | 659 | 0.000 |
| 18 | 23.45 | 31.56 | 4.79 | 0 | 0.08 | 14.54 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 21 | 0500 | 42 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.23 | 31.56 | 5.41 | 0 | 0 | 23.26 | — | 0 | 25.23 | 31.56 | 5.41 | 20.70 | 708 | 0.000 |
| 10 | 24.93 | 31.59 | 4.98 | 0.07 | 0 | 47.26 | — | 10 | 24.93 | 31.59 | 4.98 | 20.82 | 696 | 0.070 |
| 20 | 23.49 | 31.72 | 5.08 | 0.21 | 0 | 59.61 | — | 20 | 23.49 | 31.72 | 5.08 | 21.33 | 647 | 0.137 |
| 40 | 22.97 | — | 4.70 | 0.07 | 0.10 | 50.16 | — | 30 | 21.83 | — | 4.99 | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 21 | 0340 | 50 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.42 | 31.79 | 4.68 | 0 | 0 | 7.27 | — | 0 | 27.42 | 31.79 | 4.68 | 20.19 | 756 | 0.000 |
| 10 | 26.11 | 31.75 | 4.98 | 0 | 0 | 8.00 | — | 10 | 26.11 | 31.75 | 4.98 | 20.58 | 719 | 0.074 |
| 20 | 25.62 | 31.52 | 4.98 | 0 | 0.01 | 17.45 | — | 20 | 25.62 | 31.52 | 4.98 | 20.55 | 722 | 0.146 |
| 30 | 23.17 | 32.10 | 5.78 | 0 | 0.02 | 6.54 | — | 30 | 23.17 | 32.10 | 5.78 | 21.72 | 610 | 0.213 |
| 48 | 20.65 | 32.20 | 5.18 | — | — | 14.54 | — | -- | - | - | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Temp. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 21 | 0225 | 56 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 27.79 | 31.69 | 5.00 | 0 | — | 13.81 | — | 0 | 27.79 | 31.69 | 5.00 | 20.00 | 775 | 0.000 |
| 10 | 27.09 | 31.63 | 7.09 | 0 | — | 5.09 | — | 10 | 27.09 | 31.63 | 7.09 | 20.18 | 758 | 0.077 |
| 20 | 22.31 | 32.25 | 5.56 | 0 | — | 12.36 | — | 20 | 22.31 | 32.25 | 5.56 | 22.07 | 577 | 0.143 |
| 30 | 21.34 | 32.33 | 5.00 | 0 | — | 10.91 | — | 30 | 21.34 | 32.33 | 5.00 | 22.40 | 546 | 0.200 |
| 54 | 17.02 | — | 5.18 | 0 | — | 13.81 | — | 50 | 17.93 | — | 5.00 | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 21 | 0110 | 55 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 26.63 | 31.91 | 4.98 | 0 | 0 | 10.91 | — | 0 | 26.63 | 31.91 | 4.98 | 20.53 | 724 | 0.000 |
| 10 | 26.43 | 32.00 | 4.95 | 0 | 0 | 7.27 | — | 10 | 26.43 | 32.00 | 4.95 | 20.67 | 711 | 0.072 |
| 20 | 24.72 | 32.00 | 5.37 | 0 | 0 | 10.18 | — | 20 | 24.72 | 32.00 | 5.37 | 21.19 | 661 | 0.140 |
| 30 | 21.82 | 32.36 | 5.94 | 0 | 0.02 | 18.90 | — | 30 | 21.82 | 32.36 | 5.94 | 22.29 | 555 | 0.201 |
| 53 | 16.98 | 32.38 | 5.19 | 0 | 0 | 22.54 | — | 50 | 17.46 | 32.44 | 5.45 | 23.47 | 443 | 0.301 |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 307선 해 양 관 측 성 적

## Oceanographic Data, Line 307

3월(March) 조사선(Buk Ak San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 9 | 0325 | 38 | | | | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1042.0 | 1.0 | | | | F |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 1.85 | 31.86 | 6.85 | 0.14 | 0.08 | 22.54 | 7.75 | 0 | 1.85 | 31.89 | 6.85 | 25.51 | 248 | 0.000 |
| 10 | 1.83 | 31.82 | 6.77 | 0.15 | — | 23.99 | 8.03 | 10 | 1.83 | 31.82 | 6.77 | 25.46 | 253 | 0.025 |
| 20 | 1.69 | 31.81 | 7.74 | 0.34 | 0.15 | 25.45 | 8.00 | 20 | 1.69 | 31.81 | 6.74 | 25.46 | 252 | 0.050 |
| 35 | 2.35 | 31.82 | 5.02 | 0.55 | 0.10 | 28.35 | 7.98 | 30 | 2.01 | 31.81 | 5.82 | 25.44 | 254 | 0.076 |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 9 | 0125 | 35 | | | | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1042.0 | 1.3 | | | 5 | F |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 2.10 | 31.94 | 6.80 | 0.14 | 0.08 | 18.90 | 7.72 | 0 | 2.10 | 31.94 | 6.80 | 25.56 | 245 | 0.000 |
| 10 | 2.03 | 31.90 | 6.75 | 0.17 | 0.09 | 19.63 | 8.00 | 10 | 2.03 | 31.90 | 6.75 | 25.51 | 248 | 0.025 |
| 20 | 2.09 | 31.93 | 6.87 | 0.20 | 0.13 | 21.03 | 8.02 | 20 | 2.09 | 31.93 | 6.87 | 25.53 | 246 | 0.049 |
| 30 | 2.07 | 31.94 | 6.07 | 0.27 | 0.18 | 21.81 | 7.98 | 30 | 2.07 | 31.94 | 6.07 | 25.54 | 245 | 0.074 |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 8 | 2400 | 54 | | | S 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1042.0 | 1.6 | | | | F |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 2.65 | 32.10 | 6.65 | 0.13 | 0.03 | 15.99 | 7.83 | 0 | 2.65 | 32.10 | 6.65 | 25.63 | 237 | 0.000 |
| 10 | 2.30 | 32.02 | 6.75 | 0.14 | 0.02 | 18.18 | — | 10 | 2.30 | 32.02 | 6.75 | 25.59 | 241 | 0.024 |
| 20 | 2.13 | 32.02 | 6.56 | 0.21 | 0.07 | 20.36 | 7.80 | 20 | 2.13 | 32.02 | 6.56 | 25.60 | 239 | 0.048 |
| 30 | 2.14 | 32.02 | 6.54 | 0.21 | 0.02 | 21.81 | 7.98 | 30 | 2.14 | 32.02 | 6.54 | 25.60 | 240 | 0.072 |
| 50 | 3.03 | 32.28 | 6.46 | 0.34 | 0.02 | 22.54 | 7.99 | 50 | 3.03 | 32.28 | 6.46 | 25.74 | 227 | 0.118 |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 8 | 2245 | 60 | | | E 0 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1042.0 | 1.8 | | | 5 | F |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 3.03 | 32.30 | 6.75 | 0.06 | 0.02 | 10.91 | 7.94 | 0 | 3.03 | 32.30 | 6.75 | 25.75 | 225 | 0.000 |
| 10 | 3.04 | 32.37 | 6.63 | 0.07 | 0.02 | 11.63 | 7.95 | 10 | 3.04 | 32.37 | 6.63 | 25.81 | 220 | 0.022 |
| 20 | 2.90 | 32.27 | 6.55 | 0.10 | 0.02 | 12.36 | 7.93 | 20 | 2.90 | 32.27 | 6.55 | 25.79 | 224 | 0.045 |
| 30 | 2.77 | 32.21 | 6.63 | 0.14 | 0.02 | 13.81 | 8.07 | 30 | 2.77 | 32.21 | 6.63 | 25.70 | 230 | 0.067 |
| 50 | 3.20 | 32.31 | 6.37 | 0.15 | 0.02 | 15.27 | 8.06 | 50 | 3.20 | 32.31 | 6.37 | 25.71 | 224 | 0.113 |
| 58 | 3.22 | 32.31 | 6.37 | 0.21 | 0.02 | 16.72 | 8.00 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 8 | 2125 | 58 | | | E 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1042.0 | 2.0 | | | 10 | F |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 3.45 | 32.30 | — | 0.18 | 0.02 | 9.45 | 8.15 | 0 | 3.45 | 32.30 | — | 25.72 | 229 | 0.000 |
| 10 | 3.05 | 32.26 | 6.60 | 0.22 | 0.02 | 10.91 | 8.27 | 10 | 3.05 | 32.26 | 6.60 | 25.72 | 228 | 0.023 |
| 20 | 3.03 | 32.26 | 6.54 | 0.25 | 0.06 | 11.63 | 8.18 | 20 | 3.03 | 32.26 | 6.54 | 25.72 | 228 | 0.046 |
| 30 | 4.72 | 32.46 | 6.52 | 0.27 | 0.02 | 13.09 | 8.00 | 30 | 4.72 | 32.46 | 6.52 | 25.72 | 228 | 0.069 |
| 50 | 3.41 | 32.39 | 6.44 | — | — | — | 8.05 | 50 | 3.41 | 32.39 | 6.44 | 25.78 | 222 | 0.114 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 8 | 2005 | 63 | | | E 0 | E 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1042.0 | 2.4 | | | 10 | F |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 4.09 | 32.55 | 6.52 | 0.18 | 0.04 | 12.36 | 8.27 | 0 | 4.09 | 32.55 | 6.52 | 25.85 | 215 | 0.000 |
| 10 | 3.93 | 32.48 | 6.46 | 0.24 | 0.02 | 13.81 | 8.17 | 10 | 3.93 | 32.48 | 6.46 | 25.81 | 219 | 0.022 |
| 20 | 3.82 | 32.48 | 6.39 | 0.21 | 0.02 | 17.45 | 8.22 | 20 | 3.82 | 32.48 | 6.39 | 25.82 | 218 | 0.044 |
| 30 | 3.79 | 32.49 | 6.41 | 0.28 | 0.02 | 18.18 | 8.35 | 30 | 3.79 | 32.49 | 6.41 | 25.84 | 217 | 0.065 |
| 50 | 4.44 | 32.57 | 6.35 | 0.32 | 0.02 | 19.63 | 8.40 | 50 | 4.44 | 32.57 | 6.35 | 25.83 | 217 | 0.109 |
| 60 | 4.13 | — | 6.23 | 0.35 | 0.05 | 21.08 | 8.12 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 8 | 1845 | 67 | 4 | 11 | NE 0 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1042.0 | 3.1 | | | 10 | F |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 4.90 | 32.78 | 6.21 | 0.14 | 0.30 | 9.45 | 8.32 | 0 | 4.90 | 32.78 | 6.21 | 25.95 | 206 | 0.000 |
| 10 | 4.94 | 32.71 | 6.35 | 0.14 | 0.20 | 10.18 | 8.14 | 10 | 4.94 | 32.71 | 6.35 | 25.95 | 207 | 0.021 |
| 20 | 4.82 | 32.71 | 6.25 | 0.15 | 0.12 | 13.09 | 8.00 | 20 | 4.82 | 32.71 | 6.25 | 25.90 | 211 | 0.042 |
| 30 | 4.91 | 32.71 | 6.28 | 0.18 | 0.11 | 13.81 | 8.11 | 30 | 4.91 | 32.72 | 6.28 | 25.90 | 211 | 0.063 |
| 50 | 4.91 | 32.72 | 6.27 | 0.18 | 0.10 | 15.99 | 8.23 | 50 | 4.91 | — | 6.27 | — | — | — |
| 64 | 4.90 | 32.72 | 6.27 | 0.22 | 0.14 | 15.99 | 8.40 | — | — | — | — | — | — | — |

8월 (August)　　조사선 (Chun Ma San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 20 | 1610 | 40 | 4 | 8 | SE 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1007.0 | 28.4 | | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.67 | 31.87 | 4.98 | 0.13 | 0 | 10.91 | 7.98 | 0 | 27.67 | 31.87 | 4.98 | 20.17 | 758 | 0.000 |
| 10 | 24.13 | 31.86 | 5.22 | 0.14 | 0 | 4.35 | 7.97 | 10 | 24.13 | 31.86 | 5.22 | 21.24 | 656 | 0.071 |
| 20 | 23.23 | 31.86 | 4.89 | 0.18 | 0.04 | 15.99 | 7.93 | 20 | 23.23 | 31.86 | 4.89 | 21.51 | 630 | 0.135 |
| 36 | 23.06 | 31.86 | 4.89 | 0.24 | 0 | 13.61 | 7.89 | 30 | 22.92 | 31.85 | 4.89 | 21.60 | 622 | 0.196 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 20 | 1820 | 34 | 7 | 10 | SE 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1008.0 | 27.4 | | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.15 | 31.93 | 4.89 | 0 | 0 | 5.09 | 7.81 | 0 | 27.15 | 31.93 | 4.89 | 20.38 | 738 | 0.000 |
| 10 | 23.69 | 31.96 | 5.08 | 0.03 | — | 9.45 | 7.90 | 10 | 23.69 | 31.96 | 5.08 | 21.46 | 635 | 0.069 |
| 20 | 22.82 | 31.96 | 4.79 | — | 0.20 | — | 7.75 | 20 | 22.82 | 31.96 | 4.79 | 21.71 | 611 | 0.131 |
| 30 | 22.68 | 31.96 | 4.84 | 0.01 | 0 | 18.18 | 7.60 | 30 | 22.68 | 31.96 | 4.84 | 21.74 | 608 | 0.192 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 20 | 1935 | 52 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 26.88 | 31.80 | 4.70 | 01 | 0.69 | 6.54 | 8.10 | 0 | 26.88 | 31.80 | 4.70 | 20.38 | 738 | 0.000 |
| 10 | 25.61 | 31.63 | 5.09 | 0 | 0 | 10.18 | 8.25 | 10 | 25.61 | 31.63 | 5.09 | 20.64 | 714 | 0.073 |
| 20 | 23.61 | 31.90 | 4.79 | 0.06 | 0.04 | 13.81 | 8.35 | 20 | 23.61 | 31.90 | 4.79 | 21.44 | 637 | 0.140 |
| 30 | 21.70 | 32.08 | 5.27 | 0.15 | 0 | 10.18 | — | 30 | 21.70 | 32.08 | 5.27 | 22.11 | 573 | 0.201 |
| 48 | 18.81 | 32.24 | 4.92 | 0.20 | 0 | 28.35 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 20 | 2045 | 57 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| | OBSERVED | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.92 | 31.73 | 4.66 | 0.07 | 0 | 13.81 | 8.25 | 0 | 27.92 | 31.73 | 4.66 | 19.99 | 776 | 0.000 |
| 10 | 26.93 | 31.72 | 4.79 | 0 | 0 | 8.00 | 7.90 | 10 | 26.93 | 31.72 | 4.79 | 20.30 | 746 | 0.076 |
| 20 | 22.59 | 32.17 | 4.89 | 0.06 | 0 | 12.36 | 7.98 | 20 | 22.59 | 32.17 | 4.89 | 21.93 | 590 | 0.143 |
| 30 | 21.70 | 32.23 | 5.04 | 0.07 | 0.05 | 11.63 | 7.91 | 30 | 21.70 | 32.23 | 5.04 | 22.22 | 562 | 0.201 |
| 54 | 15.28 | 32.41 | 5.39 | 0.27 | 0.35 | 11.27 | 7.95 | 50 | 16.77 | 32.37 | 5.27 | 23.59 | 431 | 0.300 |

| St No. | Date | Time | Depth | Water Color. | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 20 | 2215 | 60 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| | OBSERVED | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.66 | 31.79 | 4.60 | 0 | 0 | 10.18 | 8.12 | 0 | 27.66 | 31.79 | 4.60 | 20.12 | 763 | 0.000 |
| 10 | 27.25 | 31.78 | — | 0 | 0 | 8.00 | 8.15 | 10 | 27.25 | 31.78 | — | 20.24 | 751 | 0.076 |
| 20 | 24.68 | 32.10 | 5.69 | 0 | 0 | 6.54 | 8.24 | 20 | 24.68 | 32.10 | 5.69 | 21.28 | 652 | 0.146 |
| 30 | 20.03 | 32.49 | 5.27 | 0.03 | 0.04 | 7.27 | 8.21 | 30 | 20.03 | 32.49 | 5.27 | 22.86 | 500 | 0.204 |
| 58 | 13.83 | 32.67 | 6.26 | 0.39 | 0.01 | 6.54 | 8.28 | 50 | 14.57 | 32.75 | 5.65 | 24.35 | 353 | 0.290 |

| St No. | Date | Time | Depth m | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 20 | 2330 | 58 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.37 | 31.80 | 5.85 | 0 | 0 | 1.45 | 8.32 | 0 | 28.37 | 31.80 | 5.85 | 19.90 | 785 | 0.000 |
| 10 | 27.87 | 31.82 | 4.79 | 0 | 0.03 | 10.18 | 8.30 | 10 | 27.87 | 31.82 | 4.79 | 20.07 | 768 | 0.078 |
| 20 | 22.21 | 32.16 | 7.17 | 0 | 0.03 | 6.54 | 8.15 | 20 | 22.21 | 32.16 | 7.17 | 22.03 | 580 | 0.145 |
| 30 | 15.33 | 32.77 | 5.75 | — | — | — | 8.20 | 30 | 15.33 | 32.77 | 5.75 | 24.21 | 372 | 0.193 |
| 55 | 11.64 | 32.73 | 7.72 | — | — | — | 8.15 | — | — | — | — | — | — | — |

# 308선 해 양 관 측 성

## Oceanographic Data, Line

3월(March) 조사선(Buk Han San)

| St No. | Date | Time | Depth | Water Color. | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 7 | 1555 | 20 | 10 | 1 | N 3 | N 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 4 | 1038.0 | 4.2 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 3.45 | 32.17 | 7.00 | 0.27 | 0.19 | 10.91 | 8.09 | 0 | 3.45 | 32.17 | 7.00 | 25.61 | 233 | 0.000 |
| 10 | 3.60 | 32.12 | 6.93 | 0.32 | 0.17 | 13.81 | 8.09 | 10 | 3.60 | 32.12 | 6.93 | 25.55 | 243 | 0.024 |
| 20 | 2.96 | 32.12 | 6.95 | 0.42 | 0.11 | 14.54 | 8.11 | 20 | 2.96 | 32.12 | 6.95 | 25.62 | 233 | 0.048 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 7 | 1720 | 28 | 8 | 2 | N 3 | N 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 4 | 5 | 5.7 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 3.52 | 32.27 | 6.91 | 0.31 | 0.14 | 17.45 | 8.15 | 0 | 3.52 | 32.27 | 6.91 | 25.69 | 237 | 0.000 |
| 10 | 3.34 | 32.25 | 6.89 | 0.27 | 0.13 | 17.19 | 8.10 | 10 | 3.34 | 32.25 | 6.89 | 25.69 | 237 | 0.023 |
| 20 | 3.20 | 32.24 | 6.87 | 0.32 | 0.24 | 20.36 | 8.05 | 20 | 3.20 | 32.24 | 6.87 | 25.68 | 237 | 0.047 |
| 30 | 3.41 | 32.24 | 6.85 | 0.41 | 0.21 | 23.36 | 8.00 | 30 | 3.41 | 32.24 | 6.85 | 25.67 | 233 | 0.070 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 8 | 0645 | 49 | 6 | 3 | N 3 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1043.0 | 4.8 | | Ci | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ cm³/g | ΔD dyn. m |
| 0 | 3.25 | 32.45 | 7.41 | 0.13 | 0.12 | 11.63 | 8.12 | 0 | 3.25 | 32.46 | 7.41 | 25.88 | 215 | 0.000 |
| 10 | 3.45 | 32.42 | 7.27 | 0.18 | 0.14 | 13.09 | 8.21 | 10 | 3.45 | 32.42 | 7.29 | 25.81 | 219 | 0.022 |
| 20 | 3.77 | 32.41 | 7.18 | 0.25 | — | — | 8.18 | 20 | 3.77 | 32.41 | 7.18 | 25.77 | 223 | 0.044 |
| 30 | 3.77 | 32.41 | 7.33 | 0.34 | — | — | 8.17 | 30 | 3.77 | 32.41 | 7.33 | 25.77 | 223 | 0.066 |
| 46 | 3.75 | 32.40 | 7.16 | 0.42 | — | — | 8.85 | — | — | — | — | — | — | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 8 | 0810 | 50 | 7 | 4 | NW 1 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1042.0 | 5.6 | | Ci | 4 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ cm /g | ΔD dyn. m |
| 0 | 3.62 | 32.49 | 7.36 | 0.06 | 0.13 | 11.63 | 8.30 | 0 | 3.62 | 32.49 | 7.36 | 25.85 | 216 | 0.000 |
| 10 | 3.56 | 32.42 | 7.28 | 0.15 | 0.22 | 12.36 | 8.24 | 10 | 3.57 | 32.42 | 7.28 | 25.80 | 220 | 0.022 |
| 20 | 3.56 | 32.42 | 7.21 | 0.21 | 0.02 | 14.54 | 8.32 | 20 | 3.56 | 32.42 | 7.21 | 25.80 | 220 | 0.044 |
| 30 | 3.58 | 32.42 | 7.34 | 0.15 | 0.10 | 15.27 | 8.30 | 30 | 3.58 | 32.42 | 7.34 | 25.80 | 221 | 0.066 |
| 47 | 3.52 | 32.43 | 7.33 | 0.25 | 0.15 | 17.45 | 8.28 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 8 | 0925 | 52 | 7 | 3 | N 1 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1042.0 | 5.7 | | Ci | 7 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 3.48 | 32.44 | 7.41 | 0.24 | 0.11 | 10.91 | 8.28 | 0 | 3.48 | 32.44 | 7.41 | 25.82 | 218 | 0.000 |
| 10 | 3.26 | 32.40 | 7.49 | 0.27 | 0.23 | 11.63 | 8.20 | 10 | 3.26 | 32.40 | 7.49 | 25.81 | 219 | 0.022 |
| 20 | 3.52 | 32.39 | 7.42 | 0.25 | 0.08 | 12.36 | 8.35 | 20 | 3.52 | 32.39 | 7.42 | 25.78 | 222 | 0.044 |
| 30 | 3.63 | 32.42 | 7.24 | 0.27 | 0.05 | 13.09 | 8.30 | 30 | 3.63 | 32.42 | 7.24 | 25.79 | 221 | 0.066 |
| 50 | 3.86 | 32.49 | 7.07 | 0.21 | 0.09 | 14.54 | 8.28 | 50 | 3.86 | 32.49 | 7.07 | 25.83 | 218 | 0.110 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 8 | 1045 | 58 | 6 | 7 | NW 1 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1042.0 | 1.0 | | Ci | 7 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 4.25 | 32.65 | 7.33 | 0.60 | 0.06 | 13.09 | 8.10 | 0 | 4.25 | 32.65 | 7.33 | 25.92 | 209 | 0.000 |
| 10 | 3.98 | 32.58 | 7.31 | 0.15 | 0.04 | 13.81 | 8.07 | 10 | 3.98 | 32.58 | 7.31 | 25.89 | 212 | 0.020 |
| 20 | 4.02 | 32.57 | 7.33 | 0.17 | 0.07 | 14.54 | 8.27 | 20 | 4.02 | 32.57 | 7.33 | 25.85 | 213 | 0.042 |
| 30 | 4.43 | 32.58 | 7.31 | 0.20 | 0.14 | 17.45 | 8.22 | 30 | 4.43 | 32.58 | 7.31 | 25.84 | 217 | 0.064 |
| 55 | 4.60 | 32.68 | 7.38 | 0.28 | 0.14 | 18.18 | 8.21 | 50 | 4.66 | 32.65 | 7.35 | 25.87 | 213 | 0.107 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 8 | 1210 | 68 | 6 | 9 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1042.0 | 2.2 | | Ci | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m | |
| 0 | 4.82 | 32.77 | 7.40 | 0.34 | 0.11 | 11.63 | 8.23 | 0 | 4.82 | 32.77 | 7.40 | 25.95 | 206 | 0.000 | |
| 10 | 4.62 | 32.73 | 7.31 | 0.28 | 0.02 | 12.26 | 8.20 | 10 | 4.62 | 32.73 | 7.31 | 25.94 | 207 | 0.021 | |
| 20 | 4.62 | 32.73 | 7.27 | 0.34 | 0.07 | 13.81 | 8.23 | 20 | 4.62 | 32.73 | 7.27 | 25.94 | 207 | 0.041 | |
| 30 | 4.60 | 32.73 | 7.29 | 0.35 | 0.02 | 15.99 | 8.20 | 30 | 4.60 | 32.73 | 7.29 | 25.94 | 207 | 0.062 | |
| 50 | 4.53 | 32.74 | 7.25 | 0.38 | 0.06 | 17.45 | 8.15 | 50 | 4.53 | 32.74 | 7.25 | 25.96 | 205 | 0.103 | |
| 65 | 4.62 | 32.73 | 7.27 | 0.42 | 0.05 | 18.90 | 8.86 | — | — | — | — | — | — | — | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 8 | 1335 | 76 | 6 | 10 | NE 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1043.0 | 6.0 | | Ci | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/I | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m | |
| 0 | 5.60 | 32.56 | 7.20 | 0.14 | 0.06 | 5.82 | 8.00 | 0 | 5.60 | 32.56 | 7.20 | 25.70 | 230 | 0.000 | |
| 10 | 5.80 | — | 6.93 | 0.15 | 0.22 | 8.00 | 8.00 | 10 | 5.80 | 32.72 | 6.93 | 25.81 | 220 | 0.023 | |
| 20 | 5.51 | 32.81 | 6.75 | 0.14 | 0.13 | 9.45 | 8.13 | 20 | 5.51 | 32.81 | 6.75 | 25.91 | 211 | 0.044 | |
| 30 | 5.80 | 32.81 | 6.74 | 0.18 | 0.23 | 10.91 | 8.10 | 30 | 5.80 | 32.81 | 6.74 | 25.87 | 214 | 0.065 | |
| 50 | 5.05 | 32.80 | 6.70 | 0.20 | 0.10 | 12.36 | 8.10 | 50 | 5.05 | 32.80 | 6.70 | 25.95 | 206 | 0.107 | |
| 75 | 5.06 | 32.80 | 6.29 | 0.22 | 0.10 | 17.45 | 8.16 | 75 | 5.06 | 32.80 | 6.29 | 25.95 | 206 | 0.159 | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 8 | 1455 | 84 | 5 | 11 | NE 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1041.0 | 7.4 | | Ci | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 6.12 | 32.92 | 6.17 | 0.13 | 0.14 | 15.91 | 8.18 | 0 | 6.12 | 32.92 | 6.17 | 25.92 | 209 | 0.000 |
| 10 | 5.33 | — | 6.17 | 0.13 | — | 11.63 | 8.25 | 10 | 5.53 | 32.89 | 6.17 | 25.97 | 205 | 0.021 |
| 20 | 5.39 | 32.87 | 6.22 | 0.11 | 0.15 | 13.61 | 8.22 | 20 | 5.39 | 32.87 | 6.22 | 25.97 | 205 | 0.041 |
| 30 | 5.35 | 32.86 | 6.15 | 0.11 | 0.10 | 17.45 | 8.30 | 30 | 5.35 | 32.86 | 6.15 | 25.96 | 205 | 0.062 |
| 50 | 5.40 | 32.86 | 6.20 | 0.14 | 0.20 | 19.18 | 8.10 | 50 | 5.40 | 32.86 | 6.20 | 25.96 | 206 | 0.103 |
| 81 | 5.37 | 32.86 | 6.13 | 0.14 | 0.09 | 23.26 | 8.12 | 75 | 5.38 | 32.86 | 6.16 | 25.96 | 205 | 0.154 |

8월(August) 조사선(Chun Ma San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 20 | 1120 | 22 | 7 | 15 | SE 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1007.0 | 28.2 | | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.36 | 31.74 | 4.95 | 0 | 0 | 33.44 | 8.36 | 0 | 27.36 | 31.74 | 4.95 | 20.18 | 758 | 0.000 |
| 10 | 27.17 | 31.88 | 5.03 | 0 | 0.14 | 7.27 | 8.00 | 10 | 27.17 | 31.88 | 5.03 | 20.34 | 742 | 0.075 |
| 20 | 25.69 | 31.87 | 4.66 | 0 | 0.04 | 32.72 | 8.20 | 20 | 25.69 | 31.87 | 4.66 | 20.80 | 699 | 0.147 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 20 | 0950 | 32 | 7 | 20 | SE 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S E | 2 | 1007.0 | 27.9 | | Cu | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.09 | 31.93 | 5.13 | 0.14 | 0 | 56.71 | 8.03 | 0 | 27.09 | 31.93 | 5.13 | 20.40 | 737 | 0.000 |
| 10 | 25.44 | 32.22 | 5.27 | - | 0 | 13.69 | 8.45 | 10 | 25.44 | 32.22 | 5.27 | 21.13 | 666 | 0.070 |
| 20 | 23.69 | 31.88 | 4.79 | 0.07 | 0 | 21.81 | 8.38 | 20 | 23.69 | 31.88 | 4.79 | 21.40 | 640 | 0.136 |
| 30 | 21.33 | 32.52 | 4.81 | 0 | 0.12 | 32.72 | 8.25 | 30 | 21.33 | 32.52 | 4.81 | 22.54 | 532 | 0.194 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 20 | 0825 | 55 | 4 | 17 | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1007.6 | 27.0 | | St | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 25.46 | 32.19 | 4.79 | 0 | 0 | 39.99 | 8.10 | 0 | 25.46 | 32.19 | 4.79 | 21.11 | 669 | 0.000 |
| 10 | 23.22 | 32.42 | 4.89 | 0 | 0 | 33.44 | 8.11 | 10 | 23.22 | 32.42 | 4.89 | 21.93 | 589 | 0.064 |
| 20 | 21.72 | 32.59 | 5.29 | 0.06 | 0 | 37.08 | 8.03 | 20 | 21.72 | 32.59 | 5.29 | 22.46 | 536 | 0.119 |
| 30 | 20.06 | 32.72 | 5.03 | 0.15 | 0 | 32.72 | 7.96 | 30 | 20.06 | 32.72 | 5.03 | 23.03 | 486 | 0.170 |
| 50 | 16.30 | 32.89 | 5.27 | 0.07 | 0 | 47.26 | 8.06 | 50 | 16.45 | 32.89 | 5.23 | 24.04 | 389 | 0.259 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 20 | 0700 | 51 | 7 | 10 | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1007.5 | 27.4 | | St | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.41 | 32.05 | 4.70 | 0.04 | 0 | 39.99 | 7.81 | 0 | 27.41 | 32.05 | 4.70 | 20.39 | 737 | 0.000 |
| 10 | 27.21 | 32.14 | 4.50 | 0 | 0 | 71.97 | 7.65 | 10 | 27.21 | 32.14 | 4.50 | 20.52 | 725 | 0.073 |
| 20 | 24.33 | — | 5.30 | 0 | 0 | 35.62 | 7.70 | 20 | 24.33 | — | 5.30 | 21.70 | 612 | 0.140 |
| 30 | 16.24 | 32.93 | 5.81 | 0 | 0 | 28.35 | 7.70 | 30 | 16.24 | 32.93 | 5.81 | 24.12 | 380 | 0.190 |
| 48 | 14.07 | 32.99 | 5.62 | 0.21 | 0 | 32.72 | 7.78 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 20 | 0555 | 60 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.89 | — | 4.91 | 0 | 0 | 30.53 | 7.50 | 0 | 27.89 | — | 4.91 | | | |
| 10 | 27.73 | — | 4.46 | 0 | 0 | 38.53 | 7.81 | 10 | 27.73 | — | 4.46 | | | |
| 20 | 25.96 | — | 4.89 | 0 | 0 | 34.90 | 7.92 | 20 | 25.96 | — | 4.89 | | | |
| 30 | 16.40 | 32.90 | 5.73 | 0.07 | 0 | 31.99 | 8.15 | 30 | 16.40 | 32.90 | 5.73 | | | |
| 55 | 14.24 | 32.36 | 5.39 | 0.21 | 0 | 55.98 | 8.20 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 20 | 0435 | 60 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.61 | 31.74 | 4.58 | 0 | 0 | 35.62 | 7.80 | 0 | 27.61 | 31.74 | 4.58 | 20.10 | 765 | 0.000 |
| 10 | 26.46 | 32.20 | 4.52 | 0 | 0 | 27.63 | 7.90 | 10 | 26.46 | 32.30 | 4.52 | 20.81 | 697 | 0.073 |
| 20 | 25.99 | 31.97 | 5.16 | 0 | 0 | 42.89 | 8.10 | 20 | 25.99 | 31.97 | 5.16 | 20.78 | 700 | 0.143 |
| 30 | 17.00 | 32.97 | 5.75 | 0.11 | 0 | 51.62 | — | 30 | 17.00 | 32.97 | 5.75 | 23.98 | 394 | 0.198 |
| 57 | 14.04 | 32.00 | 5.58 | 0.21 | 0 | 15.27 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 20 | 0320 | 67 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.41 | 31.49 | 4.16 | 0 | 0 | 44.35 | — | 0 | 28.41 | 31.49 | 4.16 | 19.65 | 808 | 0.000 |
| 10 | 28.27 | 31.64 | 4.30 | 0 | 0 | 34.90 | — | 10 | 28.27 | 31.64 | 4.30 | 19.81 | 793 | 0.080 |
| 20 | 24.76 | 32.19 | 4.83 | 0 | 0 | 29.08 | — | 20 | 24.76 | 32.19 | 4.83 | 21.32 | 649 | 0.152 |
| 30 | 14.02 | 32.97 | 5.34 | 0.07 | 0 | 39.26 | — | 30 | 14.02 | 32.97 | 5.34 | 24.63 | 332 | 0.201 |
| 50 | 13.54 | 33.02 | 5.29 | 0.22 | 0.02 | 29.81 | — | 50 | 13.54 | 33.02 | 5.29 | 24.77 | 319 | 0.267 |
| 65 | 13.40 | 32.99 | 5.34 | 0.20 | 0 | 26.89 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 20 | 0145 | 76 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.73 | 31.77 | 4.14 | 0 | 0.07 | 38.53 | 7.60 | 0 | 27.73 | 31.77 | 4.14 | 20.08 | 767 | 0.000 |
| 10 | 27.49 | 31.30 | 4.41 | 0 | 0.12 | 15.27 | 7.65 | 10 | 27.49 | 31.30 | 4.41 | 19.81 | 793 | 0.078 |
| 20 | 27.21 | 32.02 | 4.13 | 0 | 0.05 | 34.17 | 7.42 | 20 | 27.21 | 32.02 | 4.13 | 20.43 | 734 | 0.154 |
| 30 | 18.31 | 32.79 | 4.99 | — | 0 | — | 8.00 | 30 | 18.31 | 32.79 | 4.99 | 23.53 | 437 | 0.213 |
| 50 | 14.26 | 32.88 | 4.75 | 0.34 | 0 | 32.72 | 7.85 | 50 | 14.26 | 32.88 | 4.75 | 24.52 | 343 | 0.291 |
| 74 | 12.64 | 32.87 | 5.08 | 0.35 | 0.04 | 35.62 | 7.45 | 0 | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 20 | 0035 | 85 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.38 | 31.83 | 4.62 | 0 | 0 | 29.08 | 7.50 | 0 | 28.38 | 31.83 | 4.62 | 19.91 | 783 | 0.000 |
| 10 | 28.22 | 31.84 | 4.91 | 0 | 0 | 34.17 | 7.50 | 10 | 28.22 | 31.84 | 4.91 | 19.97 | 778 | 0.078 |
| 20 | 24.46 | 32.35 | 5.56 | 0 | 0 | 11.63 | 7.70 | 20 | 24.46 | 32.35 | 5.56 | 21.52 | 629 | 0.148 |
| 30 | 19.29 | 32.63 | 6.34 | 0 | 0 | 12.36 | 7.78 | 30 | 19.29 | 32.63 | 6.34 | 23.16 | 472 | 0.204 |
| 50 | 12.18 | — | 7.75 | 0.08 | 0 | 18.90 | 7.62 | 50 | 12.18 | — | 7.75 | 25.02 | 295 | 0.280 |
| 82 | 11.95 | 32.98 | 5.77 | 0.21 | — | 47.26 | 7.40 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 19 | 2300 | 74 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | $\frac{D-T}{10^{-5}}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.56 | 31.80 | 4.47 | 0 | 0.01 | 32.72 | 8.02 | 0 | 28.56 | 31.80 | 4.47 | 19.84 | 791 | 0.000 |
| 10 | 28.41 | 31.80 | 4.62 | 0 | 0 | 29.08 | 7.90 | 10 | 28.41 | 31.80 | 4.62 | 19.88 | 786 | 0.079 |
| 20 | 27.15 | 32.05 | 5.99 | 0.06 | 0 | 34.17 | 8.00 | 20 | 27.15 | 32.05 | 5.99 | 20.48 | 729 | 0.155 |
| 30 | 19.04 | 32.53 | 5.87 | 0.08 | 0 | 31.26 | 7.98 | 30 | 19.04 | 32.53 | 5.87 | 23.15 | 473 | 0.215 |
| 50 | 9.56 | 32.87 | 6.13 | — | 0 | — | 7.89 | 50 | 9.56 | 32.87 | 6.13 | 25.39 | 260 | 0.288 |
| 71 | 8.52 | 32.88 | 6.40 | 0.22 | — | 5.09 | 7.85 | — | — | — | — | — | — | — |

# 309선 해 양 관 측 성 적

## Oceanographic Data, Line 309

3월(March) 조사선(Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 2 | 0745 | 29 | 9 | 2 | SW 1 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1035.0 | 3.9 | | Ci | 3 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 3.10 | 32.32 | 7.48 | 0.31 | 0.13 | 15.99 | 7.95 | 0 | 3.10 | 32.32 | 7.48 | 25.76 | 224 | 0.000 |
| 10 | 3.88 | 32.31 | 7.41 | 0.38 | 0.22 | 16.72 | 8.25 | 10 | 3.88 | 32.31 | 7.41 | 25.68 | 232 | 0.023 |
| 20 | 3.39 | 32.30 | 7.40 | 0.35 | — | 21.81 | 8.01 | 20 | 3.39 | 32.30 | 7.40 | 25.72 | 228 | 0.046 |
| 30 | 3.35 | 32.30 | 7.40 | 0.42 | 0.18 | 29.08 | 8.10 | 30 | 3.55 | 32.30 | 7.40 | 25.71 | 229 | 0.069 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 2 | 0630 | 45 | | | | W 1 |

| Wind | | Baro. | Air temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S W | 1 | 1035.0 | 4.4 | | | o | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D lyn. m |
| 0 | 4.20 | 32.53 | 7.43 | 0.35 | 0.03 | 10.91 | 8.15 | 0 | 4.20 | 32.53 | 7.43 | 25.83 | 218 | 0.000 |
| 10 | 4.16 | 32.50 | 7.31 | 0.36 | 0.03 | 11.63 | 8.07 | 10 | 4.16 | 32.50 | 7.31 | 25.81 | 220 | 0.022 |
| 20 | 4.37 | 32.45 | 7.33 | 0.38 | 0.09 | 12.36 | 8.01 | 20 | 4.37 | 32.45 | 7.33 | 25.75 | 226 | 0.044 |
| 30 | 4.08 | 32.46 | 7.29 | 0.34 | 0.08 | 14.54 | 8.00 | 30 | 4.08 | 32.46 | 7.29 | 25.78 | 222 | 0.067 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 2 | 0502 | 54 | | | | W 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1035.0 | 4.8 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 4.80 | 32.71 | 7.23 | 0.21 | 0.10 | 12.36 | 8.11 | 0 | 4.80 | 32.71 | 7.23 | 25.91 | 210 | 0.000 |
| 10 | 4.38 | 32.64 | 7.27 | — | — | — | 8.10 | 10 | 4.38 | 32.64 | 7.27 | 25.90 | 211 | 0.021 |
| 20 | 4.40 | 32.64 | 7.18 | 0.21 | 0.07 | 13.81 | 8.05 | 20 | 4.40 | 32.64 | 7.18 | 25.89 | 212 | 0.042 |
| 30 | 4.54 | 32.70 | 7.22 | 0.24 | 0.10 | 15.99 | 8.13 | 30 | 4.54 | 32.70 | 7.22 | 25.93 | 209 | 0.063 |
| 50 | 4.66 | 32.66 | 7.17 | 0.29 | 0.10 | 17.45 | 8.10 | 50 | 4.66 | 32.66 | 7.17 | 25.88 | 213 | 0.105 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 2 | 0350 | 57 | | | | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1035.0 | 5.2 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$- P μg-at/L | $NO_2$ -N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 5.20 | 32.82 | 7.27 | 0.22 | 0.11 | 12.36 | 8.05 | 0 | 5.20 | 32.82 | 7.27 | 25.95 | 206 | 0.000 |
| 10 | 5.05 | 32.76 | 7.19 | 0.24 | 0.05 | 13.81 | 8.12 | 10 | 5.05 | 32.76 | 7.19 | 25.92 | 209 | 0.021 |
| 20 | 4.88 | 32.74 | 7.21 | 0.21 | 0.06 | 15.27 | 8.10 | 20 | 4.88 | 32.74 | 7.21 | 25.92 | 209 | 0.042 |
| 30 | 4.87 | — | 7.13 | — | — | — | 8.15 | 30 | 4.87 | 32.73 | 7.13 | 25.92 | 210 | 0.063 |
| 50 | 4.76 | 32.75 | 7.12 | 0.27 | 0.13 | 17.45 | 8.17 | 50 | 4.76 | 32.75 | 7.12 | 25.94 | 207 | 0.104 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 2 | 0225 | 69 | | | | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1036.0 | 5.6 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 5.35 | — | 7.21 | 0.24 | 0.12 | 2.45 | 8.11 | 0 | 5.35 | — | 7.21 | | | |
| 10 | 5.02 | 32.87 | 7.10 | 0.27 | 0.10 | 13.81 | 8.10 | 10 | 5.02 | 32.87 | 7.10 | | | |
| 20 | 5.08 | 32.90 | 7.10 | 0.25 | 0.06 | 14.54 | 8.12 | 20 | 5.08 | 32.90 | 7.10 | | | |
| 30 | 5.07 | — | 7.02 | 0.27 | 0.10 | 15.99 | 8.10 | 30 | 5.07 | 32.86 | 7.02 | | | |
| 50 | 5.16 | 32.78 | 7.02 | 0.25 | 0.07 | 16.72 | 8.20 | 50 | 5.16 | 32.78 | 7.02 | | | |
| 66 | 5.04 | 32.79 | 7.04 | 0.25 | 0.06 | 21.81 | 8.11 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 2 | 0150 | 64 | | | W 1 | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1036.0 | 5.7 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 5.48 | 32.36 | 7.12 | 0.07 | 0.10 | 15.27 | 8.09 | 0 | 5.48 | 32.26 | 7.12 | 25.95 | 207 | 0.000 |
| 10 | 5.35 | 32.78 | 7.05 | 0.15 | 0.16 | 18.90 | 8.10 | 10 | 5.35 | 32.78 | 7.05 | 25.90 | 211 | 0.021 |
| 20 | 5.18 | 32.90 | 7.01 | 0.14 | 0.08 | 21.08 | 8.19 | 20 | 5.18 | 32.90 | 7.01 | 26.01 | 200 | 0.041 |
| 30 | 5.29 | 32.83 | 7.09 | 0.18 | 0.14 | 21.81 | 8.15 | 30 | 5.29 | 32.83 | 7.09 | 25.95 | 207 | 0.062 |
| 50 | 5.16 | 32.86 | 7.99 | 0.21 | 0.05 | 23.26 | 8.20 | 50 | 5.16 | 32.86 | 7.99 | 25.98 | 203 | 0.103 |
| 75 | 5.23 | 32.85 | 7.02 | 0.24 | 0.14 | 23.99 | 8.22 | 75 | 5.23 | 32.85 | 7.02 | 25.97 | 205 | 0.154 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 1 | 2340 | 66 | | | SW 2 | W 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1034.0 | 6.1 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/l | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 5.35 | 32.86 | 7.15 | 0.14 | 0.04 | 11.63 | 8.29 | 0 | 5.35 | 32.86 | 7.15 | 25.96 | 205 | 0.000 |
| 10 | 5.17 | 32.79 | 7.18 | 0.13 | 0.12 | 13.09 | 8.25 | 10 | 5.17 | 32.79 | 7.18 | 25.93 | 208 | 0.021 |
| 20 | 5.21 | 32.92 | 7.05 | 0.34 | 0.11 | 13.81 | 8.29 | 20 | 5.21 | 32.92 | 7.05 | 26.03 | 199 | 0.041 |
| 30 | 5.12 | 32.81 | 7.13 | 0.43 | 0.05 | 14.54 | 8.29 | 30 | 5.12 | 32.81 | 7.13 | 25.95 | 206 | 0.061 |
| 50 | 5.05 | 32.84 | 6.97 | 0.52 | 0.19 | 15.99 | 8.28 | 50 | 5.05 | 32.84 | 6.97 | 25.98 | 203 | 0.102 |
| 75 | 5.17 | — | 7.02 | 0.62 | 0.15 | 19.63 | 8.31 | 75 | 5.17 | — | 7.02 | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 1 | 2215 | 82 | | | SW 2 | W 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 10340 | 6.6 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/l | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 6.15 | — | 6.83 | 0.15 | 0.22 | 15.99 | 8.25 | 0 | 6.15 | — | 6.83 | | | |
| 10 | 5.80 | 32.98 | 6.82 | 0.15 | 0.11 | 16.72 | 8.33 | 10 | 5.80 | 32.98 | 6.82 | | | |
| 20 | 5.90 | 32.96 | 6.86 | 0.17 | 0.04 | 17.45 | 8.22 | 20 | 5.90 | 32.96 | 6.86 | | | |
| 30 | 6.06 | 32.75 | 6.86 | 0.20 | 0.14 | 18.18 | 8.22 | 30 | 6.06 | 32.75 | 6.86 | | | |
| 50 | 4.89 | 32.96 | 6.78 | 0.27 | 0.06 | 19.63 | 8.30 | 50 | 4.89 | 32.96 | 6.78 | | | |
| 75 | 5.93 | 32.94 | 6.84 | 0.29 | 0.15 | 21.08 | 8.22 | 75 | 5.93 | 32.94 | 6.84 | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 1 | 2100 | 82 | | | SW 2 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1032.0 | 6.8 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 6.32 | 32.86 | 6.92 | 0.08 | 0.08 | 13.08 | 8.18 | 0 | 6.32 | 32.86 | 6.92 | 25.85 | 216 | 0.000 |
| 10 | 6.49 | 32.88 | 6.72 | 0.14 | 0.12 | 13.81 | 8.13 | 10 | 6.49 | 32.88 | 6.72 | 25.84 | 217 | 0.022 |
| 20 | 6.31 | 32.79 | 6.83 | 0.15 | 0.10 | 14.54 | 8.30 | 20 | 6.31 | 32.79 | 6.83 | 25.79 | 221 | 0.044 |
| 30 | 6.25 | 32.91 | 6.76 | 0.18 | 0.06 | 15.27 | 8.39 | 30 | 6.25 | 32.91 | 6.76 | 25.89 | 212 | 0.065 |
| 50 | 6.04 | 32.93 | 6.73 | 0.18 | 0.17 | 16.72 | 8.25 | 50 | 6.04 | 32.93 | 6.73 | 25.94 | 208 | 0.107 |
| 79 | 6.22 | 32.93 | 6.71 | 0.18 | 0.09 | 18.18 | 8.27 | 75 | 6.16 | 32.93 | 6.71 | 25.92 | 209 | 0.160 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 1 | 1945 | 88 | | | SW 2 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1035.0 | | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$- P μg-at/L | $NO_2$- N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 6.60 | 33.11 | 6.68 | 0.13 | 0.10 | 11.63 | 8.16 | 0 | 6.60 | 33.11 | 6.68 | 26.01 | 201 | 0.000 |
| 10 | 6.51 | 32.88 | 6.77 | 0.14 | 0.09 | 13.81 | 8.14 | 10 | 6.51 | 32.88 | 6.77 | 25.84 | 217 | 0.021 |
| 20 | 6.23 | 32.96 | 6.71 | 0.17 | 0.09 | 15.99 | 8.24 | 20 | 6.23 | 32.96 | 6.71 | 25.94 | 208 | 0.042 |
| 30 | 6.34 | 32.83 | 6.73 | 0.24 | 0.10 | 17.45 | 8.18 | 30 | 6.34 | 32.23 | 6.73 | 25.82 | 219 | 0.064 |
| 50 | 6.20 | 32.90 | 6.73 | 0.27 | 0.10 | 19.63 | 8.23 | 50 | 6.20 | 32.90 | 6.73 | 25.89 | 212 | 0.107 |
| 75 | 6.34 | 32.92 | 6.73 | 0.31 | 0.06 | 21.08 | 8.15 | 75 | 6.34 | 32.92 | 6.73 | 25.89 | 212 | 0.160 |
| 85 | 6.28 | 32.90 | 6.69 | 0.32 | 0.04 | 23.26 | 8.18 | | | | | | | |

8월(August) 조사선(Chun Ma San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 19 | 1050 | 30 | 7 | 8 | NNE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 5 | 1008.0 | 28.2 | | As | 7 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.90 | 32.19 | 4.31 | 0 | 0 | 33.44 | — | 0 | 27.90 | 32.19 | 4.31 | 20.34 | 742 | 0.000 |
| 10 | 27.68 | 32.14 | 4.50 | 0 | 0.06 | 32.72 | 7.82 | 10 | 27.68 | 32.14 | 4.50 | 20.39 | 737 | 0.074 |
| 26 | 24.64 | 32.34 | 4.50 | 0 | 0.11 | 35.62 | 7.70 | 20 | 26.16 | 32.25 | 4.54 | 20.93 | 685 | 0.145 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 19 | 1130 | 41 | 4 | 16 | SE 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 5 | 1009.0 | 28.2 | | As | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.46 | 32.10 | 5.00 | 0 | 0.03 | 61.07 | 7.60 | 0 | 28.46 | 32.10 | 5.00 | 20.09 | 767 | 0.000 |
| 10 | 28.33 | 32.09 | 4.50 | 0 | 0.08 | 39.99 | 7.79 | 10 | 28.33 | 32.09 | 4.50 | 20.12 | 763 | 0.077 |
| 20 | 25.24 | 32.37 | 4.60 | — | — | — | 8.00 | 20 | 25.24 | 32.37 | 4.60 | 21.31 | 650 | 0.147 |
| 38 | 19.62 | 32.83 | 7.19 | 0.22 | 0.16 | 33.44 | 8.02 | 30 | 22.12 | 32.63 | — | 22.41 | 544 | 0.207 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 19 | 1235 | 40 | 3 | 23 | S2 | S1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1009.0 | 28.5 | | As | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.62 | 31.93 | 4.70 | 0.20 | 0 | 50.89 | 7.55 | 0 | 28.62 | 31.93 | 4.70 | 19.91 | 784 | 0.000 |
| 10 | 28.60 | 31.89 | 4.60 | 0.14 | 0 | 39.99 | 7.93 | 10 | 28.60 | 31.89 | 4.60 | 19.88 | 786 | 0.078 |
| 20 | 24.17 | 32.27 | — | 0.08 | 0.04 | 25.45 | 7.90 | 20 | 24.17 | 32.27 | — | 21.55 | 626 | 0.149 |
| 30 | 19.73 | 32.74 | 5.54 | 0.36 | 0 | 33.44 | 7.95 | 30 | 19.78 | 32.74 | 5.54 | 23.12 | 476 | 0.204 |
| 45 | 18.45 | 32.87 | 8.84 | 0.34 | 0.08 | 29.08 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 19 | 1450 | 57 | 4 | 15 | S2 | S1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | 1009.0 | 28.4 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.80 | 31.95 | 4.48 | 0.13 | 0 | 29.08 | 7.40 | 0 | 28.80 | 31.95 | 4.48 | 19.86 | 788 | 0.000 |
| 10 | 28.59 | 31.93 | 4.55 | 0 | 0 | 34.17 | 7.68 | 10 | 28.59 | 31.93 | 4.55 | 19.96 | 779 | 0.078 |
| 20 | 27.68 | 32.53 | 5.46 | — | 0 | 36.89 | 7.79 | 20 | 27.68 | 32.53 | 5.46 | 20.67 | 712 | 0.153 |
| 30 | 18.25 | 32.79 | 5.39 | — | — | — | 7.60 | 30 | 18.25 | 32.79 | 5.39 | 23.55 | 435 | 0.210 |
| 55 | 16.73 | 33.75 | 5.47 | 0.29 | 0.07 | 34.82 | 7.23 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 19 | 1500 | 60 | 2 | 21 | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 4 | 1008.0 | 29.2 | | Sc | 1 | B |

| OBSERVED | | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$ N μg-at/L | $SiO_2$ Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.86 | 31.85 | 4.54 | 0 | 0.04 | 37.08 | 8.02 | 0 | 28.86 | 31.85 | 4.54 | 19.77 | 797 | 0.000 |
| 10 | 28.61 | 31.87 | — | 0 | 0.03 | 39.99 | 7.73 | 10 | 28.61 | 31.87 | — | 19.86 | 788 | 0.079 |
| 20 | 21.71 | 32.54 | 8.93 | 0.07 | 0 | 37.08 | — | 20 | 21.71 | 32.54 | 8.93 | 22.46 | 539 | 0.146 |
| 30 | 15.52 | 32.94 | 5.46 | 0.03 | 0 | 44.35 | — | 30 | 15.52 | 32.94 | 5.46 | 24.30 | 364 | 0.191 |
| 57 | 14.16 | 32.99 | 5.43 | 0.04 | 0 | 48.71 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 19 | 1625 | 62 | 2 | 20 | S 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1006.0 | 29.3 | | Sc | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$- P μg-at/L | $NO_2$ -N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.91 | 31.73 | 4.89 | 0.08 | 0.04 | 37.80 | — | 0 | 28.91 | 31.73 | 4.89 | 19.66 | 807 | 0.000 |
| 10 | 28.83 | 32.75 | 4.39 | 0.01 | 0 | 43.60 | — | 10 | 28.83 | 32.75 | 4.39 | 19.70 | 803 | 0.082 |
| 20 | 24.48 | 32.60 | 5.37 | 0.01 | 0.04 | 39.99 | — | 20 | 24.48 | 32.60 | 5.37 | 21.71 | 611 | 0.151 |
| 30 | 18.39 | 32.71 | — | 0.03 | 0 | 39.08 | — | 30 | 18.39 | 32.71 | — | 23.44 | 445 | 0.204 |
| 59 | 13.21 | 32.99 | 5.54 | 0.21 | 0 | 25.45 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 19 | 1730 | 70 | 2 | 20 | S 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1005.0 | 28.3 | | Ns | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.95 | 31.53 | 4.66 | 0.13 | 0 | 32.72 | — | 0 | 28.95 | 31.53 | 4.66 | 19.50 | 823 | 0.000 |
| 10 | 28.33 | 31.96 | 4.55 | 0.03 | 0 | 34.90 | — | 10 | 28.33 | 31.96 | 4.55 | 20.03 | 772 | 0.080 |
| 20 | 25.63 | 32.23 | 5.07 | 0.07 | 0.03 | 38.53 | — | 20 | 25.63 | 32.23 | 5.07 | 21.08 | 671 | 0.152 |
| 30 | 19.56 | 32.41 | 6.13 | 0.06 | 0.04 | 33.44 | — | 30 | 19.56 | 32.41 | 6.13 | 22.92 | 495 | 0.210 |
| 50 | 10.08 | 32.97 | 7.85 | 0.28 | 0 | 35.62 | — | 50 | 10.08 | 32.97 | 7.85 | 25.38 | 261 | 0.286 |
| 67 | 9.95 | 32.97 | 5.78 | 0.24 | 0 | 41.44 | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 19 | 1855 | 78 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ▽D dyn. m |
| 0 | 28.88 | 31.58 | 4.60 | 0.08 | 0 | 39.99 | — | 0 | 28.88 | 31.58 | 4.60 | 19.56 | 817 | 0.000 |
| 10 | 28.34 | 31.58 | 3.91 | 0.03 | 0 | 45.07 | — | 10 | 28.34 | 31.58 | 3.91 | 19.72 | 802 | 0.081 |
| 20 | 25.89 | 32.16 | 8.53 | 0 | 0 | 18.18 | — | 20 | 25.89 | 32.16 | 8.53 | 20.95 | 683 | 0.155 |
| 30 | 20.76 | 32.42 | 6.31 | 0 | 0.01 | 36.35 | — | 30 | 20.76 | 32.42 | 6.31 | 22.62 | 524 | 0.216 |
| 50 | 10.03 | 32.91 | — | 0.21 | 0 | 42.89 | — | 50 | 10.03 | 32.91 | — | 25.34 | 265 | 0.295 |
| 75 | 9.26 | 32.92 | — | 0.29 | 0 | 35.62 | — | 75 | 9.26 | 32.92 | — | 25.47 | 252 | 0.360 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 19 | 2005 | 73 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.82 | 32.01 | 9.30 | 0.13 | 0.08 | 23.99 | — | 0 | 28.82 | 32.01 | 9.30 | 19.90 | 784 | 0.000 |
| 10 | 28.72 | 32.01 | 4.56 | 0 | 0 | 22.54 | — | 10 | 28.72 | 32.01 | 4.56 | 19.94 | 781 | 0.078 |
| 20 | 24.87 | 32.23 | 9.30 | 0 | 0 | 25.45 | — | 20 | 24.87 | 32.23 | 9.30 | 21.31 | 649 | 0.150 |
| 30 | 18.24 | 32.66 | 5.96 | 0 | 0 | 38.53 | — | 30 | 18.24 | 32.66 | 5.96 | 23.44 | 545 | 0.205 |
| 50 | 9.87 | 32.92 | 5.96 | 0.28 | 0 | 43.62 | — | 50 | 9.87 | 32.92 | 5.96 | 25.37 | 261 | 0.275 |
| 70 | 9.57 | 32.90 | 5.94 | 0.27 | 0 | 13.09 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 19 | 2135 | 74 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.42 | 31.93 | 4.68 | 0 | 0 | 24.72 | 7.90 | 0 | 28.34 | 31.93 | 4.68 | 19.98 | 777 | 0.000 |
| 10 | 27.98 | 31.97 | 4.51 | 0 | 0 | 31.26 | 7.87 | 10 | 27.98 | 31.97 | 4.51 | 20.15 | 761 | 0.077 |
| 20 | 25.60 | 32.28 | 5.25 | 0 | 0 | 22.54 | 7.43 | 20 | 25.60 | 32.28 | 5.25 | 21.13 | 667 | 0.148 |
| 30 | 18.30 | 32.57 | 6.31 | 0 | 0 | 34.17 | 7.70 | 30 | 18.30 | 32.57 | 6.31 | 23.36 | 453 | 0.204 |
| 50 | 9.35 | 32.91 | — | 0.15 | 0 | 25.45 | 7.82 | 50 | 9.35 | 32.91 | — | 25.45 | 254 | 0.275 |
| 71 | 9.13 | 32.93 | 5.96 | 0.20 | 0 | 27.63 | 7.57 | | | | | | | |

# 310선 해 양 관 측 성 적

## Oceanographic Data, Line 310

3월 (March) 조사선 (Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 1 | 0615 | 27 | | | | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1034.0 | 3.4 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 3.73 | 32.43 | 7.30 | 0.13 | [illegible] | 7.35 | 7.82 | 0 | 3.78 | 32.43 | 7.30 | 25.79 | 222 | 0.000 |
| 10 | 4.64 | 42.41 | 7.32 | [illegible] | [illegible] | 7.32 | 7.82 | 10 | 4.64 | 32.41 | 7.32 | 25.69 | 231 | 0.023 |
| 24 | 4.14 | 32.42 | 7.26 | 0.17 | 0.17 | 7.26 | 7.90 | 20 | 4.48 | 32.41 | 7.29 | 25.70 | 230 | 0.046 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 1 | 0735 | 58 | 7 | 6 | SW 1 | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1034.0 | 4.5 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 4.22 | 32.56 | 7.34 | 0.18 | 0.19 | 7.34 | 7.90 | 0 | 4.22 | 32.56 | 7.34 | 25.85 | 216 | 0.000 |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 4.14 | 32.51 | [illegible] | 25.82 | 219 | 0.022 |
| [illegible] | [illegible] | [illegible] | 7.13 | 0.22 | 0.21 | 7.13 | [illegible] | 20 | 4.29 | 32.54 | 7.13 | 25.93 | 215 | 0.044 |
| [illegible] | 4.34 | 32.55 | 7.16 | 0.21 | 0.22 | 7.16 | 8.02 | 30 | 4.34 | 32.55 | 7.16 | 25.85 | 216 | 0.065 |
| [illegible] | [illegible] | 32.52 | 7.12 | 3.20 | 0.17 | 22.54 | [illegible] | 57 | 4.41 | 32.57 | 7.10 | 25.76 | 216 | 0.108 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 1 | 0900 | 71 | 7 | 2.5 | SW 1 | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1035.0 | 6.7 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 6.61 | 32.89 | 7.07 | 0.11 | 0.10 | 13.81 | 8.04 | 0 | 6.61 | 32.89 | 7.07 | 25.91 | 210 | 0.000 |
| 10 | 5.68 | 32.88 | 6.92 | 0.15 | — | 18.18 | 7.98 | 10 | 5.68 | 32.88 | 6.92 | 25.94 | 207 | 0.021 |
| 20 | 5.65 | 32.84 | 6.91 | 0.17 | 0.13 | 20.36 | 7.90 | 20 | 5.65 | 32.84 | 6.91 | 25.91 | 210 | 0.042 |
| 30 | 5.58 | 32.83 | 6.90 | 0.14 | 0.15 | 21.81 | 7.98 | 30 | 5.58 | 32.83 | 6.90 | 25.91 | 210 | 0.063 |
| 50 | 5.63 | 32.84 | 6.92 | 0.21 | 0.10 | 22.54 | 7.98 | 50 | 5.63 | 32.84 | 6.92 | 25.91 | 210 | 0.105 |
| 68 | 5.51 | 32.83 | 6.88 | 0.28 | 0.07 | 23.99 | 7.97 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 1 | 1025 | 72 | 7 | 4.8 | SW | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1035.0 | 6.6 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 6.00 | — | 6.92 | 0.24 | 0.23 | 21.81 | 7.98 | 0 | 6.00 | — | 6.92 | | | |
| 10 | 5.77 | 32.95 | 6.92 | 0.32 | 0.18 | 22.54 | 8.02 | 10 | 5.77 | 32.95 | 6.92 | | | |
| 20 | 5.77 | 32.89 | 6.90 | 0.36 | 0.18 | 23.26 | 8.00 | 20 | 5.77 | 32.89 | 6.90 | | | |
| 30 | 5.64 | 32.89 | 6.85 | 0.41 | 0.10 | 24.72 | 7.99 | 30 | 5.64 | 32.89 | 6.85 | | | |
| 50 | 5.75 | 32.89 | 6.84 | 0.56 | 0.08 | 25.45 | 8.02 | 50 | 5.75 | 32.89 | 6.84 | | | |
| 76 | 5.80 | 32.90 | 6.86 | 0.90 | 0.17 | 33.44 | 8.10 | 75 | 5.80 | 32.89 | 6.86 | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 1 | 1140 | 82 | 7 | 3 | SW 3 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1035.0 | 6.7 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 6.53 | 33.02 | 6.90 | 0.21 | 0.10 | 26.17 | 8.03 | 0 | 6.53 | 33.02 | 6.90 | 25.94 | 207 | 0.000 |
| 10 | 6.25 | 33.00 | 6.88 | 0.25 | 0.15 | 27.63 | 8.10 | 10 | 6.25 | 33.00 | 6.88 | 25.96 | 205 | 0.021 |
| 20 | 6.15 | 32.97 | 6.78 | 0.28 | 0.27 | 30.53 | 8.10 | 20 | 6.15 | 32.97 | 6.78 | 25.95 | 206 | 0.041 |
| 30 | 5.97 | 32.97 | 6.82 | 0.25 | 0.08 | 31.26 | 8.15 | 30 | 5.97 | 32.97 | 6.82 | 25.98 | 204 | 0.062 |
| 50 | 6.08 | 32.98 | 6.77 | 0.27 | 0.09 | 33.44 | 8.10 | 50 | 6.08 | 32.98 | 6.77 | 25.97 | 204 | 0.103 |
| 75 | 5.88 | 32.96 | 6.77 | 0.36 | 0.15 | 37.08 | 8.04 | 75 | 5.88 | 32.96 | 6.77 | 25.98 | 204 | 0.154 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 1 | 1335 | 87 | 6 | 4 | SW 3 | W 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1035.9 | 7.8 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 6.42 | — | 6.84 | 0.07 | 0.16 | 27.63 | 7.94 | 0 | 6.42 | — | 6.84 | | | |
| 10 | 6.31 | 32.98 | 6.85 | 0.07 | 0.08 | 28.35 | 7.92 | 10 | 6.31 | 32.98 | 6.85 | | | |
| 20 | 6.45 | 32.97 | 6.92 | 0.09 | 0.08 | 29.08 | 8.00 | 20 | 6.45 | 32.97 | 6.92 | | | |
| 30 | 6.44 | 32.97 | 6.71 | 0.18 | 0.13 | 30.53 | 8.03 | 30 | 6.44 | 32.97 | 6.71 | | | |
| 50 | 6.41 | 32.97 | 6.71 | 0.35 | 0.18 | 31.99 | 8.10 | 50 | 6.41 | 32.97 | 6.71 | | | |
| 75 | 6.26 | 32.97 | 6.75 | 0.38 | 0.18 | 35.62 | 8.12 | 75 | 6.26 | 32.97 | 6.75 | | | |
| 84 | 6.70 | 32.95 | 6.74 | 0.38 | 0.19 | 36.35 | 8.13 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 1 | 1455 | 92 | 6 | 4 | SW 2 | W 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1035.0 | 8.9 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 6.92 | — | 6.96 | 0.11 | 0.15 | 14.54 | 8.09 | 0 | 6.92 | — | 6.96 | | | |
| 10 | 6.47 | 32.95 | 6.91 | 0.14 | 0.11 | 15.27 | 8.02 | 10 | 6.47 | 32.95 | 6.91 | | | |
| 20 | 6.27 | 32.98 | 6.88 | 0.15 | 0.08 | 15.79 | 8.13 | 20 | 6.27 | 32.98 | 6.88 | | | |
| 30 | 6.44 | 32.95 | 6.79 | 0.15 | 0.09 | 16.72 | 8.11 | 30 | 6.44 | 32.95 | 6.79 | | | |
| 50 | 6.24 | 32.96 | 6.80 | 0.14 | 0.22 | 17.45 | 8.10 | 50 | 6.24 | 32.96 | 6.80 | | | |
| 75 | 6.37 | 32.97 | 6.79 | 0.13 | 0.14 | 17.45 | 8.09 | 75 | 6.37 | 32.97 | 6.79 | | | |
| 89 | 6.39 | 32.96 | 6.74 | 0.04 | 0.07 | 18.18 | 8.18 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 1 | 1625 | 90 | 6 | 4 | W 2 | W 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1035.0 | 9.1 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m | |
| 0 | 6.95 | 32.84 | 6.76 | 0.04 | 0.12 | 19.63 | 8.14 | 0 | 6.95 | 32.84 | 6.76 | 25.75 | 226 | 0.000 | |
| 10 | 6.93 | 32.90 | 6.65 | 0.08 | 0.11 | 13.81 | 8.32 | 10 | 6.93 | 32.90 | 6.65 | 25.80 | 221 | 0.022 | |
| 20 | 6.74 | 32.90 | 6.64 | 0.18 | 0.10 | 15.54 | 8.30 | 20 | 6.74 | 32.90 | 6.64 | 25.82 | 218 | 0.044 | |
| 30 | 6.56 | 32.90 | 6.63 | 0.17 | 0.10 | 15.27 | 8.26 | 30 | 6.56 | 32.90 | 6.63 | 25.85 | 216 | 0.066 | |
| 50 | 6.69 | 32.91 | 7.25 | 0.22 | 0.10 | 15.99 | 8.20 | 50 | 6.69 | 32.91 | 7.25 | 25.84 | 217 | 0.109 | |
| 75 | 6.53 | 32.90 | 6.92 | 0.42 | 0.09 | 18.18 | 8.15 | 75 | 6.53 | 32.90 | 6.99 | 25.85 | 216 | 0.164 | |
| 87 | 6.67 | 32.91 | 6.71 | 0.35 | 0.11 | 19.63 | 8.29 | — | — | — | — | — | — | — | |

8월 (August) 조사선 (Chun Ma San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 19 | 0140 | 30 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.40 | 31.68 | 4.31 | 0 | 0.08 | 39.26 | 7.50 | 0 | 28.40 | 31.68 | 4.31 | 19.80 | 975 | 0.000 |
| 10 | 27.98 | 31.59 | 4.64 | 0 | 0.10 | 39.99 | 7.90 | 10 | 27.98 | 31.59 | 4.64 | 19.86 | 788 | 00.79 |
| 28 | 18.86 | 32.70 | 4.64 | 0.07 | 0.03 | 25.45 | 7.60 | 20 | 24.24 | 32.00 | 4.73 | 21.33 | 647 | 0.151 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 18 | 2350 | 67 | | | | |

| Wind | | Boro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 22.50 | 31.61 | 4.41 | 0 | 0.07 | 34.43 | 7.94 | 0 | 22.50 | 31.61 | 4.41 | 19.71 | 930 | 0.000 |
| 10 | 23.48 | 31.82 | 4.49 | 0 | 0.09 | 35.61 | 7.97 | 10 | 23.48 | 31.82 | 4.49 | 19.82 | 839 | 0.087 |
| 20 | 17.69 | 32.36 | 4.64 | 0 | 0.08 | 27.63 | 7.72 | 20 | 17.69 | 32.36 | 4.64 | 21.35 | 634 | 0.127 |
| 30 | 15.64 | 32.54 | 6.02 | 0.13 | 0.14 | 41.44 | 7.80 | 30 | 15.64 | 32.54 | 6.02 | 23.96 | 396 | 0.169 |
| 50 | 14.18 | 32.91 | 5.18 | 0.14 | 0.15 | 43.42 | 7.85 | 50 | 14.18 | 32.94 | 5.18 | 24.28 | 317 | 0.242 |
| 64 | 13.17 | 32.96 | 4.63 | 0.21 | 0.12 | 34.44 | 7.52 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 18 | 2220 | 74 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| | OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.61 | 32.05 | 4.41 | — | 0.05 | 15.99 | 8.00 | 0 | 28.61 | 32.05 | 4.41 | 20.00 | 775 | 0.000 |
| 10 | 28.33 | 32.06 | 4.45 | 0 | 0.04 | 31.26 | 7.98 | 10 | 28.33 | 32.06 | 4.45 | 20.10 | 765 | 0.077 |
| 20 | 20.20 | 32.33 | 5.61 | 0.03 | 0.10 | 33.44 | 7.82 | 20 | 20.20 | 32.33 | 5.61 | 22.70 | 516 | 0.141 |
| 30 | 16.83 | 32.75 | 5.94 | 0.14 | 0.03 | 25.45 | 7.86 | 30 | 16.83 | 32.75 | 5.94 | 23.85 | 406 | 0.187 |
| 50 | 10.09 | 32.97 | 5.69 | — | — | — | 8.06 | 50 | 10.09 | 32.97 | 5.69 | 25.37 | 261 | 0.254 |
| 70 | 9.15 | 32.94 | 5.77 | 0.25 | 0.07 | 29.08 | 8.00 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 18 | 2100 | 80 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| | OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 23.65 | 31.84 | 4.50 | 0 | 0.08 | 36.45 | 7.80 | 0 | 28.65 | 31.84 | 4.50 | 19.83 | 791 | 0.000 |
| 10 | 28.42 | 31.81 | 4.31 | 0 | 0.05 | 21.81 | 7.82 | 10 | 28.42 | 31.81 | 4.31 | 19.88 | 786 | 0.079 |
| 20 | 23.00 | 31.84 | 5.35 | 0.06 | 0.07 | 24.72 | 7.40 | 20 | 23.00 | 31.84 | 5.35 | 21.57 | 625 | 0.149 |
| 30 | 17.39 | 31.35 | 5.85 | 0.27 | 0.04 | 21.08 | 7.60 | 30 | 17.39 | 31.35 | 5.85 | 23.41 | 438 | 0.203 |
| 50 | 9.87 | 32.55 | 5.85 | 0.29 | 0.20 | 37.99 | 7.40 | 50 | 9.87 | 32.55 | 5.85 | 25.08 | 289 | 0.277 |
| 77 | 7.26 | 32.43 | — | 0 | 0.04 | 19.63 | 7.38 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 18 | 1935 | 84 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 29.61 | 31.42 | 4.42 | 0 | 0.08 | 33.44 | 8.20 | 0 | 29.61 | 31.42 | 4.42 | 19.20 | 852 | 0.000 |
| 10 | 28.33 | 31.82 | 4.41 | 0 | 0.01 | 29.08 | 8.00 | 10 | 28.83 | 31.82 | 4.41 | 19.91 | 784 | 0.082 |
| 20 | 26.16 | 31.71 | 4.96 | 0 | 0.08 | 37.08 | — | 20 | 26.16 | 31.71 | 4.96 | 20.53 | 724 | 0.157 |
| 30 | 20.03 | 32.22 | 6.17 | 0.01 | 0.13 | 32.72 | 7.90 | 30 | 20.03 | 32.22 | 6.17 | 22.66 | 520 | 0.220 |
| 50 | 8.19 | 32.42 | 5.65 | 0.04 | 0.08 | 53.07 | 7.81 | 50 | 8.19 | 32.42 | 5.65 | 25.25 | 273 | 0.299 |
| 80 | 6.60 | 31.86 | 5.46 | 0.15 | 0.07 | 34.17 | 7.85 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 18 | 1830 | 90 | 4 | 20 | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1007.1 | 30.1 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ cc/L | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 28.45 | 30.97 | 4.74 | 0 | 0 | 41.44 | — | 0 | 28.45 | 30.97 | 4.74 | 19.25 | 847 | 0.000 |
| 10 | 28.38 | 30.07 | 4.56 | 0 | 0 | 39.26 | — | 10 | 28.38 | 30.07 | 4.56 | 19.34 | 838 | 0.084 |
| 20 | 25.81 | 31.47 | 5.09 | 0 | 0 | 35.62 | — | 20 | 25.81 | 31.47 | 5.09 | 20.46 | 731 | 0.163 |
| 30 | 19.19 | 32.19 | 6.15 | 0 | 0.15 | 31.26 | — | 30 | 19.19 | 32.19 | 6.15 | 22.85 | 502 | 0.225 |
| 50 | 6.76 | 32.38 | 5.89 | — | 0.17 | — | — | 50 | 6.76 | 32.38 | 5.89 | 25.41 | 258 | 0.301 |
| 87 | 6.24 | 32.37 | 5.64 | 0.18 | 0.08 | 47.98 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 18 | 1710 | 90 | 3 | 20 | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S E | 2 | 1003.4 | 29.7 | | Cu | 3 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m | |
| 0 | 29.10 | 31.26 | 4.52 | 0 | 0 | 29.81 | — | 0 | 29.10 | 31.26 | 4.52 | 19.25 | 847 | 0.000 | |
| 10 | 28.93 | 31.21 | 4.24 | 0 | 0 | 35.62 | — | 10 | 28.93 | 31.21 | 4.24 | 19.27 | 845 | 0.085 | |
| 20 | 25.74 | 31.82 | 5.62 | 0 | 0 | 34.17 | — | 20 | 25.74 | 31.82 | 5.62 | 20.74 | 704 | 0.162 | |
| 30 | 14.73 | 32.29 | 6.71 | 0.04 | 0 | 61.80 | — | 30 | 14.73 | 32.29 | 6.71 | 23.96 | 396 | 0.217 | |
| 50 | 7.03 | 32.38 | 5.69 | 0.10 | 0 | 39.99 | — | 50 | 7.03 | 32.38 | 5.69 | 25.38 | 261 | 0.283 | |
| 87 | 6.64 | 32.42 | 5.37 | 0.20 | 0 | 32.72 | — | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 18 | 1615 | 90 | 3 | 22 | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 14 | 1003.0 | 29.8 | | Cu | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn·m | |
| 0 | 28.62 | 31.23 | 4.51 | 0 | 0 | 56.71 | 7.95 | 0 | 28.62 | 31.23 | 4.51 | 19.39 | 834 | 0.000 | |
| 10 | 28.17 | 31.25 | 4.52 | 0 | 0 | 37.08 | 7.70 | 10 | 28.17 | 31.25 | 4.52 | 19.55 | 818 | 0.083 | |
| 20 | 23.70 | 31.87 | 5.18 | 0 | 0 | 15.27 | 7.70 | 20 | 23.70 | 31.87 | 5.18 | 21.39 | 642 | 0.156 | |
| 30 | 13.93 | 32.20 | 6.94 | 0 | 0 | 36.35 | 7.98 | 30 | 13.93 | 32.20 | 6.94 | 24.06 | 386 | 0.207 | |
| 50 | 7.82 | 32.40 | 6.00 | 0 | 0 | 39.99 | 7.85 | 50 | 7.82 | 32.40 | 6.00 | 25.28 | 270 | 0.273 | |
| 85 | 7.67 | 32.58 | 5.29 | 0.14 | 0 | 54.43 | — | — | — | — | — | — | — | — | — |

# 311선 해 양 관 측 성 적

## Oceanographic Data, Line 311

2월(February) 조사선(Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 1 | 0020 | 34 | | | SW 4 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1034.0 | 4.0 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 4.01 | 32.61 | 7.31 | 0.15 | 0.24 | 22.77 | 7.90 | 0 | 4.01 | 32.61 | 7.31 | 25.91 | 210 | 0.000 |
| 10 | 3.78 | 32.56 | 7.26 | 0.17 | 0.37 | 37.08 | 7.68 | 10 | 3.78 | 32.56 | 7.26 | 25.89 | 212 | 0.021 |
| 20 | 3.62 | 32.50 | 6.88 | 0.25 | 0.49 | 48.71 | 7.74 | 20 | 3.62 | 32.50 | 6.88 | 25.86 | 215 | 0.042 |
| 31 | — | — | — | 0.27 | 0.59 | — | 7.81 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 28 | 2355 | 75 | | | SW 4 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1034.0 | 5.4 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 5.85 | 32.76 | 7.13 | 0.14 | 0.12 | 11.63 | 8.21 | 0 | 5.85 | 32.76 | 7.13 | 25.83 | 218 | 0.000 |
| 10 | 4.94 | 32.73 | 7.05 | 0.18 | 0.13 | 13.09 | 8.27 | 10 | 4.94 | 32.73 | 7.05 | 25.91 | 210 | 0.021 |
| 20 | 5.18 | 32.71 | 7.12 | 0.20 | 0.14 | 13.81 | 8.20 | 20 | 5.18 | 32.71 | 7.12 | 25.86 | 214 | 0.043 |
| 30 | 5.08 | — | 7.02 | 0.32 | 0.15 | 15.27 | 8.15 | 30 | 5.08 | 32.70 | 7.02 | 25.87 | 214 | 0.064 |
| 50 | 5.09 | 32.71 | 6.96 | 0.41 | 0.16 | 15.99 | 8.14 | 50 | 5.09 | 32.71 | 6.96 | 25.87 | 214 | 0.107 |
| 72 | 3.90 | 32.72 | 7.04 | 0.55 | 0.17 | 17.45 | 8.16 | — | — | — | — | — | — | — |

# 311선 해 양 관 측 성 적

## Oceanographic Data, Line 311

2월(February) 조사선(Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 28 | 2155 | 90 | | | NW 1 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1034.0 | 5.6 | | | o | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 6.76 | 33.00 | 6.85 | 0.41 | 0.22 | 11.63 | 8.04 | 0 | 6.76 | 33.00 | 6.85 | 25.90 | 211 | 0.000 |
| 10 | 6.42 | 33.00 | 6.74 | 0.49 | 0.06 | 12.36 | 8.03 | 10 | 6.42 | 33.00 | 6.74 | 25.94 | 207 | 0.021 |
| 20 | 6.63 | 33.00 | 6.82 | 0.56 | 0.15 | 15.27 | 8.08 | 20 | 6.63 | 33.00 | 6.82 | 25.92 | 210 | 0.042 |
| 30 | 6.47 | 33.00 | 6.71 | 0.60 | 0.23 | 22.54 | 8.10 | 30 | 6.47 | 33.00 | 6.71 | 25.94 | 208 | 0.063 |
| 50 | 6.52 | 33.00 | 6.83 | 0.63 | 0.26 | 26.17 | 8.08 | 50 | 6.52 | 33.00 | 6.83 | 25.93 | 208 | 0.104 |
| 75 | 6.51 | 33.00 | 6.84 | 0.70 | 0.13 | 31.26 | 8.16 | 75 | 6.51 | 33.00 | 6.84 | 25.94 | 208 | 0.157 |
| 87 | 6.53 | 32.94 | 6.75 | 0.77 | 0.39 | 38.53 | 8.20 | | | | | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 28 | 1920 | 90 | | | NW 1 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WNW | 2 | 1034.0 | 5.7 | | Cu | 4 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T C | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 6.85 | — | 6.81 | — | — | — | 8.01 | 0 | 6.85 | — | 6.81 | | | |
| 10 | 6.88 | 33.05 | 6.73 | 0.04 | 0.11 | 15.27 | 8.00 | 10 | 6.88 | 33.05 | 6.73 | | | |
| 20 | 6.83 | 33.01 | 6.69 | 0.04 | 0.09 | 18.90 | 8.11 | 20 | 6.83 | 33.01 | 6.69 | | | |
| 30 | 6.79 | 33.02 | 6.73 | 0.10 | 0.07 | 21.05 | 8.20 | 30 | 6.79 | 33.02 | 6.73 | | | |
| 50 | 7.26 | 33.23 | 6.68 | 0.11 | 0.15 | 26.17 | 8.25 | 50 | 7.26 | 33.23 | 6.68 | | | |
| 75 | 8.18 | 33.43 | 6.68 | 0.17 | 0.06 | 29.08 | 8.28 | 75 | 8.18 | 33.43 | 6.68 | | | |
| 86 | 7.52 | 33.44 | 6.42 | — | — | — | 8.20 | — | — | — | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 28 | 1755 | 93 | 5 | | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WNW | 2 | 1034.0 | 6.0 | | Cu | 1 | B |

| OBSERVED | | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 6.94 | 33.15 | 6.64 | 0.14 | 0.10 | 9.45 | 8.19 | 0 | 6.94 | 33.15 | 6.64 | 26.00 | 202 | 0.000 |
| 10 | 6.91 | 33.11 | 6.64 | 0.15 | 0.08 | 13.81 | 8.08 | 10 | 6.91 | 33.11 | 6.64 | 25.98 | 204 | 0.020 |
| 20 | 6.78 | 33.11 | 6.55 | 0.18 | 0.06 | 15.27 | 8.11 | 20 | 6.78 | 33.11 | 6.55 | 25.98 | 203 | 0.041 |
| 30 | 6.49 | 33.13 | 6.53 | 0.14 | 0.03 | 15.99 | 8.22 | 30 | 6.49 | 33.13 | 6.53 | 26.04 | 198 | 0.061 |
| 50 | 6.76 | 33.70 | 6.33 | 0.15 | 0.02 | 16.72 | 8.26 | 50 | 6.76 | 33.70 | 6.33 | 26.16 | 186 | 0.099 |
| 75 | 9.94 | 34.07 | 6.15 | 0.21 | 0.02 | 17.45 | 8.32 | 75 | 9.94 | 34.07 | 6.15 | 26.26 | 177 | 0.145 |
| 90 | 10.13 | 34.07 | 6.25 | 0.38 | 0.18 | 35.62 | 8.12 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 28 | 1639 | 89 | 7 | 4 | NW 3 | NW2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1034.0 | 6.4 | | | 0 | B |

| OBSERVED | | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 7.12 | 33.15 | 6.73 | 0.11 | 0.09 | 10.91 | 8.20 | 0 | 7.12 | 33.15 | 6.73 | 25.97 | 205 | 0.000 |
| 10 | 7.08 | — | 6.70 | 0.15 | 0.03 | 11.63 | 8.01 | 10 | 7.08 | 33.09 | 6.70 | 25.93 | 208 | 0.020 |
| 20 | 6.93 | 33.07 | 6.72 | 0.18 | 0.08 | 12.36 | 8.11 | 20 | 6.93 | 33.07 | 6.72 | 25.93 | 208 | 0.041 |
| 30 | 7.08 | 33.08 | 6.77 | 0.21 | 0.08 | 13.09 | 8.22 | 30 | 7.08 | 33.08 | 6.77 | 25.92 | 209 | 0.062 |
| 50 | 8.14 | 33.48 | 6.43 | 0.24 | 0.08 | 14.54 | 8.23 | 50 | 8.14 | 33.48 | 6.43 | 26.08 | 194 | 0.103 |
| 75 | 8.58 | 33.59 | 6.44 | 0.29 | 0.03 | 16.72 | 8.20 | 75 | 8.58 | 33.59 | 6.44 | 26.10 | 192 | 0.151 |
| 84 | 8.63 | 33.59 | 6.34 | 0.32 | 0.01 | 20.36 | 8.20 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 28 | 1515 | 84 | 6 | 3 | NW 4 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | 1034.0 | 4.9 | | Cu | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dynm |
| 0 | 7.87 | 33.29 | 6.67 | — | 0.06 | 18.90 | 8.17 | 0 | 7.87 | 33.29 | 6.67 | 25.97 | 204 | 0.000 |
| 10 | 7.32 | 33.21 | 6.54 | — | 0.02 | 19.63 | 8.17 | 10 | 7.32 | 33.21 | 6.54 | 25.99 | 203 | 0.020 |
| 20 | 7.49 | 33.21 | 6.63 | — | 0.01 | 21.08 | 8.22 | 20 | 7.49 | 33.21 | 6.63 | 25.96 | 205 | 0.041 |
| 30 | 7.34 | 33.22 | 6.59 | — | — | — | 8.28 | 30 | 7.34 | 33.22 | 6.59 | 25.99 | 202 | 0.061 |
| 50 | 7.52 | 33.23 | 6.63 | — | — | — | 8.27 | 50 | 7.52 | 33.23 | 6.63 | 25.98 | 204 | 0.102 |
| 79 | 8.14 | 33.27 | 6.46 | — | 0.02 | 22.54 | 8.22 | 75 | 8.02 | 33.26 | 6.50 | 25.93 | 208 | 0.154 |

8월(March) 조사선(Chun Ma San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 16 | 1220 | 40 | 6 | 13 | SW 3 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 5 | 1006.0 | 28.5 | | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.35 | 30.66 | 4.33 | 0 | 0 | 32.72 | — | 0 | 28.35 | 30.66 | 4.33 | 19.05 | 867 | 0.000 |
| 10 | 28.28 | 30.93 | 4.50 | 0 | 0 | 25.65 | — | 10 | 28.28 | 30.93 | 4.50 | 19.27 | 845 | 0.086 |
| 20 | 27.55 | 31.89 | 4.92 | 0.08 | 0 | 43.62 | — | 20 | 27.55 | 31.89 | 4.92 | 20.23 | 753 | 0.166 |
| 37 | 17.80 | 32.05 | 5.20 | 0.21 | 0 | 32.72 | — | 30 | 23.11 | 32.21 | 5.15 | 21.81 | 601 | 0.233 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 16 | 1940 | 65 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 4 | 1005.6 | 27.2 | 27.0 | Ns | 10 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.21 | 30.76 | 4.55 | 0.01 | 0 | 23.99 | — | 0 | 28.21 | 30.76 | 4.55 | 19.17 | 855 | 0.000 |
| 10 | 28.12 | 30.75 | 4.48 | 0 | 0 | 23.44 | — | 10 | 28.12 | 30.75 | 4.48 | 19.19 | 853 | 0.085 |
| 20 | 23.14 | 31.37 | 5.18 | 0.01 | 0 | 22.54 | — | 20 | 23.14 | 31.37 | 5.18 | 21.17 | 662 | 0.161 |
| 30 | 19.11 | 31.81 | 5.37 | 0.08 | 0 | 44.35 | — | 30 | 19.11 | 31.81 | 5.37 | 22.58 | 527 | 0.221 |
| 60 | 13.80 | 32.36 | 5.22 | 0.15 | 0 | 47.26 | — | 50 | 14.44 | 32.30 | 5.39 | 24.04 | 389 | 0.313 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 18 | 0700 | 98 | 2 | 11 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1006.0 | 27.4 | | As | 6 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$- P μg-at/L | $NO_2$- N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.45 | 30.62 | 4.41 | 0.04 | 0 | 29.08 | — | 0 | 27.45 | 30.62 | 4.41 | 19.31 | 841 | 0.000 |
| 10 | 23.66 | 31.19 | 5.02 | 0 | 0 | 25.45 | — | 10 | 23.66 | 31.19 | 5.02 | 20.88 | 690 | 0.077 |
| 20 | 22.76 | 31.33 | 4.89 | 0 | 0 | 23.99 | — | 20 | 22.76 | 31.33 | 4.89 | 21.25 | 655 | 0.144 |
| 30 | 18.62 | 31.86 | 5.08 | 0 | 0 | 27.63 | — | 30 | 18.62 | 31.86 | 5.08 | 22.74 | 512 | 0.202 |
| 50 | 12.40 | 32.39 | 5.52 | 0.03 | 0 | 29.08 | — | 50 | 12.40 | 32.39 | 5.52 | 24.51 | 344 | 0.288 |
| 95 | 10.14 | 32.41 | 7.09 | 0.13 | 0.08 | 31.99 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 18 | 0900 | 16 | 3 | 16 | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1008.0 | 28.2 | | Ci | 2 | |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.64 | 30.47 | 4.33 | 0 | 0 | 21.81 | — | 0 | 28.64 | 30.47 | 4.33 | 18.82 | 889 | 0.000 |
| 10 | 28.50 | 30.42 | 4.34 | 0 | 0 | 26.89 | — | 10 | 28.50 | 30.42 | 4.34 | 18.82 | 889 | 0.089 |
| 20 | 24.29 | 31.10 | 4.31 | 0 | 0 | 21.81 | — | 20 | 24.29 | 31.10 | 4.31 | 20.63 | 714 | 0.169 |
| 30 | 17.73 | 32.14 | 6.03 | 0 | 0 | 33.44 | — | 30 | 17.73 | 32.14 | 6.03 | 23.17 | 471 | 0.228 |
| 50 | 9.64 | 32.56 | 5.64 | 0.20 | 0.01 | 34.17 | — | 50 | 9.64 | 32.56 | 5.64 | 25.13 | 284 | 0.304 |
| 95 | 7.58 | 32.48 | 5.65 | 0.11 | 0.01 | 36.35 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 19 | 1010 | 80 | 2 | 19 | SE 2 | SE 1 |

| Wind | | Baro. | AirTemp. | | cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1009.0 | 30.1 | | Cu | 3 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.80 | 30.48 | 4.35 | 0 | 0 | 16.72 | — | 0 | 28.80 | 30.48 | 4.35 | 18.76 | 894 | 0.000 |
| 10 | 28.59 | 30.44 | 4.31 | 0 | 0 | 36.35 | — | 10 | 28.59 | 30.44 | 4.31 | 18.80 | 890 | 0.089 |
| 20 | 24.35 | 31.21 | 5.26 | 0 | 0 | 21.08 | — | 20 | 24.35 | 31.21 | 5.26 | 20.70 | 707 | 0.169 |
| 30 | 16.89 | 32.33 | 5.65 | 0 | 0 | 31.26 | — | 30 | 16.89 | 32.33 | 5.65 | 23.63 | 428 | 0.226 |
| 50 | 8.06 | 32.46 | 5.48 | 0.04 | 0 | 18.90 | — | 50 | 8.06 | 32.46 | 5.48 | 25.30 | 269 | 0.296 |
| 76 | 7.56 | 32.44 | 5.59 | 0.52 | 0.30 | 42.89 | — | 75 | 7.36 | 32.45 | 5.58 | 25.38 | 260 | 0.362 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 18 | 1135 | 87 | 3 | 20 | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1009.0 | 30.2 | | Cu | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 29.24 | 30.66 | 4.49 | 0 | 0 | 50.89 | — | 0 | 29.24 | 30.66 | 4.49 | 18.78 | 892 | 0.000 |
| 10 | 28.51 | 30.72 | 4.60 | 0 | 0 | 34.90 | — | 10 | 28.51 | 30.72 | 4.60 | 19.04 | 867 | 0.088 |
| 20 | 23.30 | 30.98 | 5.39 | 0 | 0 | 34.17 | — | 20 | 23.30 | 30.98 | 5.39 | 20.83 | 695 | 0.116 |
| 30 | 15.59 | 32.43 | 6.23 | 0 | 0 | 18.90 | — | 30 | 15.59 | 32.43 | 6.23 | 23.89 | 403 | 0.221 |
| 50 | 7.43 | 32.44 | 5.69 | 0.25 | 0 | 29.81 | — | 50 | 7.43 | 32.44 | 5.69 | 25.37 | 261 | 0.288 |
| 84 | 7.21 | 32.43 | 5.56 | 0.36 | 0 | 26.81 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 18 | 1230 | 86 | 3 | 19 | SE | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weat er |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1008.0 | 29.2 | | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at, L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.98 | 30.23 | 4.33 | 0 | 0 | 26.89 | — | 0 | 28.98 | 30.23 | 4.33 | 18.52 | 918 | 0.000 |
| 10 | 28.33 | 30.62 | 4.34 | 0 | 0 | 42.89 | — | 10 | 28.33 | 30.62 | 4.34 | 19.02 | 869 | 0.089 |
| 20 | 23.33 | 30.82 | 4.41 | 0 | 0 | 42.17 | — | 20 | 23.33 | 30.82 | 4.41 | 19.17 | 855 | 0.176 |
| 30 | 16.52 | 32.42 | 6.02 | 0 | 0 | 26.89 | — | 30 | 16.52 | 32.42 | 6.02 | 23.66 | 424 | 0.240 |
| 50 | 7.33 | 32.45 | 5.63 | 0.21 | 0 | 22.54 | — | 50 | 7.33 | 32.45 | 5.63 | 25.39 | 260 | 0.308 |
| 83 | 7.25 | 32.47 | 7.70 | 0.17 | 0 | 23.64 | — | — | — | — | — | — | — | — |

# 312선 해 양 관 측 성 적

## Oceanographic Data, Line 312

2월(February) 조사선(Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 26 | 1100 | 86 | 7 | 3 | SE 3 | SE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 6 | 1028.0 | 3.7 | | St-Cu | 7 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.20 | 34.17 | 6.68 | 0.35 | 0.09 | 33.44 | 8.02 | 0 | 10.20 | 34.17 | 6.68 | 26.29 | 174 | 0.000 |
| 10 | 10.31 | 34.07 | 6.67 | 0.42 | 0.06 | 34.17 | 8.03 | 10 | 10.31 | 34.07 | 6.67 | 26.19 | 183 | 0.018 |
| 20 | 10.15 | 34.22 | 6.61 | 0.42 | 0.07 | 37.80 | 8.04 | 20 | 10.15 | 34.21 | 6.61 | 26.33 | 170 | 0.036 |
| 30 | 10.29 | 34.09 | 6.61 | 0.41 | 0.08 | 39.26 | 8.05 | 30 | 10.30 | 34.08 | 6.61 | 26.21 | 182 | 0.053 |
| 49 | 10.43 | 34.09 | 6.50 | 0.45 | 0.06 | 40.71 | 8.13 | 50 | 10.43 | 34.09 | 6.50 | 26.19 | 184 | 0.090 |
| 74 | 10.54 | 34.11 | 6.39 | 0.41 | 0.05 | 42.17 | 8.25 | 75 | 10.54 | 34.11 | 6.38 | 26.19 | 184 | 0.136 |
| 82 | 10.53 | 34.13 | 6.30 | 0.41 | 0.02 | 42.89 | 8.24 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 26 | 1240 | 73 | 3 | 3 | SE 3 | SE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1028.0 | 3.4 | | Cu | 7 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 7.20 | 33.40 | 6.60 | 1.30 | 0.16 | 51.62 | 8.15 | 0 | 7.20 | 33.40 | 6.60 | 26.15 | 187 | 0.000 |
| 9 | 7.04 | 33.31 | 6.62 | 1.22 | 0.10 | 53.07 | 8.10 | 10 | 7.04 | 33.30 | 6.63 | 26.10 | 192 | 0.019 |
| 19 | 6.97 | 33.31 | 6.76 | — | 0.06 | 55.98 | 8.07 | 20 | 6.85 | 33.31 | 6.76 | 26.13 | 189 | 0.038 |
| 29 | 5.54 | 33.32 | 6.74 | 1.62 | 0.09 | 57.43 | 8.05 | 30 | 5.92 | 33.31 | 6.77 | 26.25 | 178 | 0.056 |
| 48 | 6.85 | 33.32 | 6.75 | 1.64 | 0.05 | 58.89 | 8.11 | 50 | 6.97 | — | 6.75 | — | — | — |
| 68 | 6.84 | — | 6.74 | 3.02 | 0.13 | 59.61 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 26 | 1415 | 84 | | 3 | SE 3 | SE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1028.0 | 3.8 | | Cu | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 6.42 | 33.22 | 7.21 | 0.21 | 0.09 | 27.43 | 8.00 | 0 | 6.42 | 33.22 | 7.21 | 26.12 | 191 | 0.000 |
| 10 | 6.59 | 33.24 | 7.13 | 0.32 | 0.04 | 28.35 | 8.00 | 10 | 6.59 | 33.24 | 7.13 | 26.11 | 191 | 0.019 |
| 20 | 6.43 | 33.25 | 6.86 | 1.44 | 0.30 | 43.62 | 7.96 | 20 | 6.43 | 33.25 | 6.86 | 26.14 | 188 | 0.038 |
| 30 | 6.35 | 33.27 | 6.61 | 1.55 | 0.14 | 77.77 | 7.92 | 30 | 6.35 | 33.27 | 6.61 | 26.16 | 186 | 0.057 |
| 50 | 6.79 | 33.28 | 6.73 | 2.30 | 0.04 | 84.33 | 7.92 | 50 | 6.29 | 33.28 | 6.73 | 26.18 | 184 | 0.094 |
| 80 | 6.83 | 33.26 | 6.7 | [illegible] | [illegible] | [illegible] | [illegible] | 7[illegible] | 6.66 | 33.26 | 6.78 | 26.12 | 190 | 0.141 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 26 | 1535 | 92 | 10 | 25 | SE 4 | SE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1028.0 | 2.9 | | Cu | 5 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 8.45 | 33.64 | 6.59 | 0.04 | 0.07 | 23.26 | 7.92 | 0 | 8.45 | 33.64 | 6.59 | 26.16 | 186 | 0.000 |
| 10 | 8.33 | 33.60 | 6.54 | 0.04 | 0.04 | 23.99 | 7.92 | 10 | 8.33 | 33.60 | 6.54 | 26.15 | 188 | 0.019 |
| 20 | 8.61 | — | 6.60 | 0.15 | 0.06 | 26.89 | 8.01 | 20 | 8.61 | 33.68 | 6.60 | 26.17 | 185 | 0.037 |
| 30 | 7.54 | 33.81 | 6.43 | 0.20 | 0.10 | 31.99 | 8.00 | 30 | 7.54 | 33.81 | 6.43 | 26.43 | 161 | 0.055 |
| 50 | 9.62 | 33.98 | 6.43 | 0.18 | 0.08 | 32.72 | 8.90 | 50 | 9.62 | 33.98 | 6.43 | 26.24 | 179 | 0.089 |
| 70 | 10.62 | 34.09 | 6.36 | 0.27 | 0.06 | 34.17 | 8.01 | 75 | 10.70 | 34.10 | 6.33 | 26.15 | 187 | 0.135 |
| 84 | 10.69 | 34.13 | 6.25 | 0.34 | 0.03 | 35.62 | 8.11 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 26 | 1655 | 103 | 7 | 5 | SE 4 | SE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1026.0 | 5.3 | | St-Cu | 8 | C |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.55 | 34.25 | 6.25 | 0.10 | 0.08 | 33.44 | 8.09 | 0 | 10.55 | 34.25 | 6.25 | 26.29 | 174 | 0.000 |
| 10 | 10.66 | 34.24 | 6.18 | 0.10 | 0.10 | 34.17 | 8.10 | 10 | 10.66 | 34.24 | 6.18 | 26.26 | 176 | 0.018 |
| 19 | 10.55 | 34.26 | 6.25 | 0.11 | 0.10 | 36.35 | 8.17 | 20 | 10.56 | 34.25 | 6.25 | 26.30 | 173 | 0.035 |
| 29 | 10.70 | 34.25 | 6.19 | 0.17 | 0.08 | 41.44 | 8.19 | 30 | 10.69 | 34.25 | 6.19 | 26.27 | 176 | 0.053 |
| 48 | 10.57 | 34.27 | 6.25 | 0.18 | 0.08 | 42.17 | 8.17 | 50 | 10.58 | 34.27 | 6.25 | 26.30 | 173 | 0.088 |
| 72 | 10.81 | 34.27 | 6.15 | 0.27 | 0.11 | 42.89 | 8.18 | 75 | 10.82 | 34.27 | — | 26.26 | 177 | 0.132 |
| 96 | 10.88 | 34.28 | 6.15 | 0.28 | 0.15 | 43.62 | 8.10 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 28 | 0655 | 91 | 7 | 3 | NNW 3 | NNW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 2 | 1026.0 | 5.3 | | Cu | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 10.89 | 34.40 | 6.09 | 0.10 | 0.15 | 23.26 | 8.00 | 0 | 10.89 | 34.40 | 6.09 | 26.35 | 169 | 0.000 |
| 10 | 10.77 | 34.32 | 5.87 | 0.11 | 0.18 | 25.45 | 7.98 | 10 | 10.77 | 34.32 | 5.87 | 26.31 | 172 | 0.017 |
| 20 | 10.82 | 34.31 | 5.93 | 0.15 | 0.09 | 31.29 | 8.01 | 20 | 10.82 | 34.31 | 5.83 | 26.29 | 174 | 0.034 |
| 30 | 10.61 | 34.35 | 5.91 | 0.17 | 0.06 | 39.99 | 8.18 | 30 | 10.61 | 34.35 | 5.91 | 26.36 | 168 | 0.052 |
| 49 | 10.71 | 34.32 | 5.97 | 0.17 | 0.05 | 51.62 | 8.11 | 50 | 10.70 | 34.32 | 5.94 | 26.32 | 171 | 0.086 |
| 75 | 10.80 | 34.38 | 5.97 | 0.18 | 0.12 | 53.07 | 8.16 | 75 | 10.80 | 34.38 | 5.97 | 26.35 | 169 | 0.128 |
| 87 | 11.14 | 34.40 | 6.94 | 0.21 | 0.06 | 58.16 | 8.18 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 28 | 0835 | 92 | 7 | 2 | NW 3 | NNW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1036.0 | 5.9 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 10.48 | 34.42 | 6.48 | 0.05 | 0.14 | 11.63 | — | 10 | 10.48 | 34.42 | 6.48 | 26.44 | 160 | 0.000 |
| 10 | 10.63 | 34.39 | 6.42 | 0.11 | 0.03 | 12.41 | 8.20 | 10 | 10.63 | 34.39 | 6.42 | 26.39 | 165 | 0.016 |
| 20 | 10.92 | 34.39 | 6.16 | 0.12 | 0.03 | 17.45 | 8.20 | 20 | 10.92 | 34.39 | 6.16 | 26.33 | 170 | 0.033 |
| 30 | 10.92 | 34.41 | 6.12 | 0.21 | 0.02 | 19.63 | 8.24 | 30 | 10.92 | 34.41 | 6.12 | 26.35 | 168 | 0.050 |
| 50 | 10.70 | 34.40 | 6.13 | 0.29 | 0.02 | 20.36 | 8.28 | 50 | 10.70 | 34.40 | 6.13 | 26.38 | 165 | 0.084 |
| 74 | 10.95 | 34.38 | 6.06 | 0.22 | 0.02 | 21.96 | 8.31 | 75 | 10.95 | 34.38 | 6.06 | 26.32 | 171 | 0.126 |
| 87 | 10.94 | 34.38 | 5.96 | 0.27 | 0.02 | 22.54 | 8.25 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 28 | 0955 | 86 | 7 | 2 | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1036.0 | 6.7 | | | 0 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | ΔD dyn. m |
| 0 | 10.75 | 34.45 | 6.35 | 0.18 | 0.17 | 23.26 | 8.37 | 0 | 10.75 | 34.45 | 6.35 | 26.41 | 163 | 0.000 |
| 10 | 10.44 | 34.46 | — | 0.21 | 0.09 | 24.72 | 8.39 | 10 | 10.44 | 34.46 | 6.17 | 26.47 | 157 | 0.016 |
| 20 | 10.70 | 34.45 | 6.08 | 0.21 | 0.05 | 26.17 | 8.38 | 20 | 10.70 | 34.45 | 6.08 | 26.42 | 162 | 0.032 |
| 30 | 10.52 | 34.44 | 6.09 | 0.27 | 0.10 | 26.89 | 8.31 | 30 | 10.52 | 34.44 | 6.09 | 26.44 | 159 | 0.048 |
| 49 | 10.73 | 34.44 | 6.13 | 0.32 | 0.03 | 26.89 | 8.31 | 50 | 10.73 | 34.44 | 6.13 | 26.41 | 163 | 0.080 |
| 82 | 10.73 | 34.44 | 6.00 | 0.29 | 0.02 | 27.63 | 8.32 | 75 | 10.76 | 34.44 | 6.05 | 26.40 | 164 | 0.122 |

8월 (August) 조사선 (Chun Ma San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 16 | 1150 | 75 | 5 | 15 | S 2 | S 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1000.7 | 25.6 | | St | 1 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ⊿D dyn. m |
| 0 | 23.10 | 32.09 | 5.03 | 0.08 | 0 | 15.99 | — | 0 | 23.10 | 32.09 | 5.03 | 21.72 | 609 | 0.000 |
| 10 | 20.26 | 32.13 | 5.54 | 0 | 0 | 46.53 | — | 10 | 20.26 | 32.13 | 5.54 | 22.53 | 532 | 0.057 |
| 20 | 15.15 | 32.70 | 5.46 | 0 | 0.04 | 37.80 | — | 20 | 15.15 | 32.70 | 5.46 | 24.19 | 374 | 0.102 |
| 30 | 12.80 | 32.88 | 5.27 | 0.28 | 0 | 6.54 | — | 30 | 12.80 | 32.88 | 5.27 | 24.81 | 315 | 0.137 |
| 50 | 12.91 | 33.98 | 4.98 | 0.33 | 0.05 | 18.18 | — | 50 | 12.91 | 33.98 | 4.98 | 25.64 | 236 | 0.192 |
| 72 | 11.70 | — | 5.08 | 0.17 | 0.14 | 19.63 | — | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 16 | 1025 | 76 | 6 | 10 | S 3 | S 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 5 | 1000.7 | 25.2 | | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOALTED | | | | CALCULATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ⊿D dyn. m |
| 0 | 22.54 | 31.94 | — | 0.01 | 0 | 43.62 | 7.85 | 0 | 22.54 | 31.94 | — | 21.46 | 635 | 0.000 |
| 10 | 17.66 | 32.46 | 5.83 | 0 | 0 | 29.08 | 8.10 | 10 | 17.66 | 32.46 | 5.83 | 23.43 | 446 | 0.054 |
| 20 | 15.33 | 32.64 | 5.11 | 0 | 0 | 25.45 | 8.15 | 20 | 15.33 | 32.64 | 5.11 | 24.10 | 382 | 0.096 |
| 30 | 14.71 | 32.64 | 4.98 | 0.22 | 0 | 53.07 | — | 30 | 14.71 | 32.64 | 4.98 | 24.23 | 370 | 0.133 |
| 50 | 11.99 | 32.96 | 5.16 | 0 | 0.11 | 15.27 | — | 50 | 11.99 | 32.96 | 5.16 | 25.03 | 294 | 0.200 |
| 75 | 11.41 | 33.04 | 5.08 | 0.24 | 0 | 16.72 | — | 75 | 11.41 | 33.04 | 5.08 | 25.19 | 278 | 0.272 |

| St No. | Date | Time | epthD | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 16 | 0855 | 82 | 5 | 18 | S3 | S3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1000.7 | 27.2 | | S c | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 24.26 | 33.07 | 5.27 | 0.01 | 0.024 | 47.26 | 7.65 | 0 | 24.26 | 33.07 | 5.27 | 22.13 | 571 | 0.000 |
| 10 | 19.98 | 32.17 | 5.46 | 0 | 0 | 55.98 | 7.65 | 10 | 19.98 | 32.17 | 5.46 | 22.63 | 522 | 0.055 |
| 20 | 15.95 | 32.52 | 5.09 | 0.07 | 0 | 49.44 | 7.70 | 20 | 15.95 | 32.52 | 5.09 | 23.87 | 404 | 0.101 |
| 30 | 15.26 | 32.49 | 5.16 | 0.07 | 0 | 27.63 | 7.96 | 30 | 15.26 | 32.49 | 5.16 | 24.01 | 391 | 0.141 |
| 50 | 11.12 | 33.07 | 5.27 | 0.18 | 0 | 47.26 | 7.65 | 50 | 11.12 | 33.07 | 5.27 | 25.27 | 271 | 0.207 |
| 79 | 10.10 | 33.09 | 4.91 | 0.07 | 0 | 48.71 | 7.50 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 16 | 0720 | 93 | 2 | 16 | S 3 | S 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1006.0 | 26.4 | | St | 2 | B |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 24.52 | — | 4.64 | 0 | 0 | 51.62 | 8.01 | 0 | 24.52 | — | 4.64 | | | |
| 10 | 20.33 | 31.69 | 5.41 | 0 | 0 | 50.89 | 8.18 | 10 | 20.33 | 31.69 | 5.41 | | | |
| 20 | 19.10 | 31.70 | 5.56 | 0 | 0 | 23.99 | 8.32 | 20 | 19.10 | 31.70 | 5.56 | | | |
| 30 | 17.57 | 32.05 | 5.65 | 0.10 | 0 | 43.62 | 8.25 | 30 | 17.57 | 32.05 | 5.65 | | | |
| 50 | 15.48 | 32.19 | 5.24 | 0.10 | 0 | — | — | 50 | 15.48 | 32.19 | 5.24 | | | |
| 90 | 11.12 | 32.51 | 5.20 | 1.27 | 0 | 29.26 | 8.20 | 75 | 12.79 | 32.38 | — | | | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 15 | 0850 | 103 | 2 | 18 | S 4 | SE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 5 | 1006.0 | 29.8 | | St | 4 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.10 | 30.79 | 4.41 | 0.15 | 0 | 36.35 | 8.15 | 0 | 27.10 | 30.79 | 4.41 | 19.55 | 819 | 0.000 |
| 10 | 25.58 | 30.90 | 5.68 | 0 | 0 | 35.62 | 8.20 | 10 | 25.58 | 30.90 | 5.68 | 20.10 | 765 | 0.079 |
| 20 | 19.39 | 31.97 | 5.27 | 0 | 0 | 14.54 | 8.21 | 20 | 19.39 | 31.97 | 5.27 | 22.63 | 522 | 0.144 |
| 30 | 15.75 | 32.28 | 5.27 | 0.42 | 0 | 47.26 | 8.20 | 30 | 15.75 | 32.28 | 5.27 | 23.74 | 417 | 0.191 |
| 50 | 15.44 | 32.75 | — | 0.22 | 0 | 42.76 | 8.20 | 50 | 15.44 | 32.75 | — | 24.16 | 376 | 0.270 |
| 75 | 11.54 | 32.71 | 5.39 | — | 0 | — | 8.22 | 75 | 11.54 | 32.71 | 5.39 | 24.92 | 304 | 0.356 |
| 100 | 8.98 | 31.35 | 5.24 | 0.25 | 0.02 | 45.80 | 7.90 | 100 | 8.98 | 31.35 | 5.24 | 24.29 | 365 | 0.440 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 14 | 1410 | 90 | 2 | 18 | S 4 | S 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 7 | 1004.0 | 28.2 | | NS | 8 | C |

| OBSERVED | | | | | | | | INTEROPLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 27.82 | 30.59 | 4.27 | 0.20 | 0.03 | 43.63 | 7.95 | 0 | 27.82 | 30.59 | 4.27 | 19.16 | 855 | 0.000 |
| 10 | 27.89 | 30.54 | 4.41 | 0.01 | 0 | 43.62 | — | 10 | 27.89 | 30.54 | 4.41 | 19.10 | 861 | 0.086 |
| 26 | 22.69 | 31.94 | 4.98 | 0.07 | 0.01 | 29.81 | 7.55 | 20 | 22.69 | 31.94 | 4.98 | 21.73 | 609 | 0.159 |
| 30 | 18.82 | 32.02 | 5.39 | 0 | 0 | 43.62 | 7.80 | 30 | 18.82 | 32.02 | 5.39 | 22.81 | 505 | 0.215 |
| 50 | 14.95 | 32.24 | 5.58 | 0 | 0 | 46.53 | — | 50 | 14.95 | 32.24 | 5.58 | 23.88 | 403 | 0.306 |
| 85 | 10.68 | 32.85 | 5.23 | 0.07 | 0 | 36.35 | — | 75 | 11.53 | 32.65 | 5.42 | 24.87 | 309 | 0.396 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 14 | 1230 | 92 | 2 | 16 | S 4 | S3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 7 | 1005.4 | 29.6 | | NS | 7 | BC |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ⌒D dyn. m |
| 0 | 28.22 | 30.34 | 4.34 | 0.08 | 0 | 7.27 | 7.60 | 0 | 28.22 | 30.34 | 4.34 | 18.85 | 886 | 0.000 |
| 10 | 27.92 | 30.34 | 4.55 | 0.03 | 0 | 34.17 | 8.00 | 10 | 27.92 | 30.34 | 4.55 | 18.95 | 876 | 0.088 |
| 20 | 21.40 | 31.58 | 5.18 | 0.06 | 0 | 14.54 | 7.70 | 20 | 21.40 | 31.58 | 5.18 | 21.81 | 601 | 0.166 |
| 30 | 16.83 | 31.86 | 5.87 | 0 | 0.03 | 10.91 | 7.56 | 30 | 16.83 | 31.86 | 5.87 | 23.17 | 471 | 0.212 |
| 50 | 10.84 | 32.96 | 5.08 | 0 | 0 | 34.17 | 8.02 | 50 | 10.84 | 32.96 | 5.08 | 25.24 | 274 | 0.290 |
| 85 | 10.53 | 33.12 | 5.03 | 0.26 | 0 | 9.45 | 7.88 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 14 | 1110 | 88 | 3 | 20 | SW3 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 6 | 1004.3 | 29.1 | | Cu | 4 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ %L | σt | D-T $10^{-5}$ $cm^3/g$ | ⌒D dyn. m |
| 0 | 28.41 | 30.78 | 4.70 | 0 | 0 | 21.81 | 7.80 | 0 | 28.41 | 30.78 | 4.70 | 19.11 | 860 | 0.000 |
| 10 | 27.68 | 30.39 | 4.97 | 0 | 0.10 | 11.63 | 7.90 | 10 | 27.68 | 30.39 | 4.97 | 19.06 | 865 | 0.086 |
| 20 | 21.33 | 31.06 | 5.65 | 0 | 0 | 18.18 | 8.10 | 20 | 21.33 | 31.06 | 5.65 | 21.44 | 637 | 0.161 |
| 30 | 19.26 | 32.55 | 5.97 | 0 | 0 | 10.91 | 8.07 | 30 | 19.26 | 32.55 | 5.97 | 23.11 | 477 | 0.217 |
| 50 | 10.87 | 32.97 | 5.18 | 0.03 | 0 | 14.54 | — | 50 | 10.87 | 32.97 | 5.18 | 25.24 | 274 | 0.293 |
| 85 | 10.66 | 33.08 | 5.20 | 0.10 | 0 | 13.09 | 8.11 | — | — | — | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 14 | 0940 | 88 | 2 | 13 | S 4 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 6 | 1003.5 | 28.5 | | Cu | 3 | Bc |

| OBSERVED | | | | | | | | INTERPOLATED | | | | CALCULATED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μga-t/L | $NO_2^-$ N μg-at/L | $SiO_2$-Si μg-at/L | pH | Z m | T ℃ | S ‰ | $O_2$ % | σt | D-T $10^{-5}$ $cm^3/g$ | △D dyn. m |
| 0 | 28.54 | 30.31 | 4.46 | 0.01 | 0 | 39.26 | 8.20 | 0 | 28.54 | 30.31 | 4.46 | 18.72 | 898 | 0.000 |
| 10 | 21.23 | 30.27 | 4.55 | — | — | — | — | 10 | 21.23 | 30.27 | 4.55 | 20.87 | 692 | 0.079 |
| 20 | 20.58 | 30.93 | 5.46 | 0 | 0 | 50.89 | 8.50 | 20 | 20.58 | 30.93 | 5.46 | 21.54 | 627 | 0.145 |
| 30 | 12.10 | 32.63 | 5.90 | 0 | 0 | 50.89 | 8.23 | 30 | 12.10 | 32.63 | 5.90 | 24.76 | 320 | 0.193 |
| 50 | 10.64 | 33.13 | 5.05 | 0.10 | 0 | 53.07 | 8.10 | 50 | 10.64 | 33.13 | 5.05 | 25.40 | 259 | 0.251 |
| 85 | 10.35 | 33.15 | 5.08 | 0.25 | 0 | 58.16 | 8.28 | — | — | — | — | — | — | — |

# 제 3 편

# 횡단정선 해양 관측 성적

(수온, 염분. 산소. 인산염. 질산염. 규산염. pH및 기상관측자료)

◇

# PART 3

# SECTIONAL OCEANOGRAPHIC OBSERVATIONS

(Temperature. Salinity. Oxygen, $PO_4$-P. $NO_2$-N.
$SiO_2$-Si. pH and the Meteorological Data)

1967

# 차 례

동해 해양조사성적 ····· 243
A. 102선 해양관측성적 ····· 245
B. 103선 해양관측성적 ····· 249
C. 104선 해양관측성적 ····· 252
D. 105선 해양관측성적 ····· 255
E. 106선 해양관측성적 ····· 258
F. 107선 해양관측성적 ····· 261
남해 해양조사성적 ····· 265
A. 203선 해양관측성적 ····· 267
B. 204선 해양관측성적 ····· 269
C. 205선 해양관측성적 ····· 279
D. 206선 해양관측성적 ····· 292
E. 207선 해양관측성적 ····· 301
F. 208선 해양관측성적 ····· 325
G. 209선 해양관측성적 ····· 351
H. 313선 해양관측성적 ····· 365
I. 314선 해양관측성적 ····· 368
J. 315선 해양관측성적 ····· 375
서해 해양조사성적 ····· 383
A. 306선 해양관측성적 ····· 385
B. 307선 해양관측성적 ····· 388
C. 308선 해양관측성적 ····· 391
D. 309선 해양관측성적 ····· 395
E. 310선 해양관측성적 ····· 400
F. 311선 해양관측성적 ····· 404
G. 312선 해양관측성적 ····· 408

# CONTENTS

Oceanographic Observations, Eastern Waters ····· 243

A. Oceanographic, Data Line 102 ····· 245

B. Oceanographic, Data Line 103 ····· 249

C. Oceanographic, Data Line 104 ····· 252

D. Oceanographic, Data Line 105 ····· 255

E. Oceanographic, Data Line 106 ····· 258

F. Oceanographic, Data Line 107 ····· 261

Oceanographic Observations, Southern Waters ····· 265

A. Oceanographic, Data Line 203 ····· 267

B. Oceanographic, Data Line 204 ····· 269

C. Oceanographic, Data Line 205 ····· 279

D. Oceanographic, Data Line 206 ····· 292

E. Oceanographic, Data Line 207 ····· 301

F. Oceanographic, Data Line 208 ····· 325

G. Oceanographic, Data Line 209 ····· 351

H. Oceanographic, Data Line 313 ····· 365

I. Oceanographic, Data Line 314 ····· 368

J. Oceanographic, Data Line 315 ····· 375

Oceanographic Observations, Western Waters ····· 383

A. Oceanographic, Data Line 306 ····· 385

B. Oceanographic, Data Line 307 ····· 388

C. Oceanographic, Data Line 308 ····· 391

D. Oceanographic, Data Line 309 ····· 395

E. Oceanographic, Data Line 310 ····· 400

F. Oceanographic, Data Line 311 ····· 404

G. Oceanographic, Data Line 312 ····· 408

# 동 해 해 양 조 사 성 적

# OCEANOGRAPHIC OBSERVATIONS EASTERN WATERS

1 9 6 7

# 102선 해 양 관 측 성 적

## Oceanographic Data, Line 102

| Month | 4 월 (제 림 호) | | | | | | | 6 월 (제 림 호) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 04 | 05 | 06 | 07 |
| Day | 27 | 27 | 27 | 27 | 27 | 27 | 26 | 27 | 27 | 27 | 27 |
| Item \ Time / Z(m) | 0947 | 0830 | 0710 | 0530 | 0320 | 1050 | 2220 | 0945 | 1040 | 1200 | 1430 |
| T ℃ 0 | 15.40 | 14.72 | 15.21 | 15.42 | 15.21 | 15.30 | 13.12 | 20.00 | 21.50 | 21.70 | 21.90 |
| 10 | 15.18 | 14.22 | 14.82 | 15.92 | 15.00 | 15.09 | 12.59 | 15.68 | 10.80 | 19.24 | 18.27 |
| 20 | 14.90 | 14.13 | 14.52 | 14.92 | 15.32 | 13.90 | 12.34 | 15.37 | 7.61 | 19.12 | 17.14 |
| 30 | 14.74 | 13.93 | 14.22 | 14.81 | 15.05 | 13.24 | 11.92 | 11.46 | 6.15 | 15.21 | 14.92 |
| 50 | — | 12.42 | 13.25 | 14.58 | 14.79 | 11.58 | 11.45 | — | 5.72 | 12.74 | 7.08 |
| 75 | — | 11.90 | 12.88 | 14.09 | 13.19 | 11.27 | 11.38 | — | 5.51 | 7.62 | 6.76 |
| 100 | — | 11.33 | 8.39 | 13.89 | 9.35 | 10.66 | 10.17 | — | 5.05 | 3.00 | 3.51 |
| 125 | — | — | — | — | — | — | — | — | 4.74 | 2.13 | 3.72 |
| 150 | — | 9.18 | 3.31 | 10.72 | 9.02 | 6.60 | 4.12 | — | 3.12 | 1.85 | 2.15 |
| 200 | — | 7.28 | 3.05 | 2.04 | 3.39 | 6.04 | 2.16 | — | 2.19 | 1.81 | 2.01 |
| Botm | 9.16 | — | — | — | — | — | — | 6.12 | — | — | — |
| S ‰ 0 | 33.50 | 34.37 | 34.37 | 34.53 | 34.57 | 34.08 | 34.47 | 33.52 | 33.56 | 33.61 | 33.65 |
| 10 | 34.43 | 34.44 | 34.40 | 34.56 | 34.60 | 34.61 | 34.51 | 33.87 | 33.52 | 33.64 | — |
| 20 | 34.52 | 34.33 | 34.44 | 34.61 | 34.60 | 34.44 | 34.50 | 34.09 | 33.59 | 33.64 | 33.64 |
| 30 | 34.50 | 34.48 | 34.43 | 34.61 | 34.60 | 34.45 | 34.50 | 34.02 | 34.14 | 33.98 | 33.90 |
| 50 | — | 34.36 | 34.42 | 34.61 | 34.55 | 34.43 | 34.26 | — | 34.12 | 33.83 | 34.17 |
| 75 | — | 34.07 | 34.28 | 34.60 | 34.38 | 34.44 | 34.51 | — | 33.61 | 33.91 | 34.05 |
| 100 | — | 34.05 | 34.05 | 34.58 | 34.42 | 34.34 | 34.23 | — | 33.98 | 33.65 | 33.87 |
| 125 | — | — | — | — | — | — | — | — | 33.97 | 33.88 | 34.07 |
| 150 | — | 34.16 | 34.05 | 34.14 | 34.29 | 34.18 | 34.03 | — | 33.92 | 33.92 | 33.88 |
| 200 | — | 34.06 | 34.06 | 34.02 | 34.08 | 34.16 | 34.03 | — | 33.91 | 33.88 | 34.12 |
| Botm | 34.39 | — | — | — | — | — | — | 34.02 | — | — | — |
| Depth(m) | 52 | 210 | 700 | 1390 | 1530 | 1880 | 1440 | 52 | | | |
| Water Trans. | 9 | 8 | 9 | — | — | — | — | 19 | 18.5 | 16.5 | 17 |
| Water Color | 4 | 3 | 4 | — | — | — | — | 3 | 3 | 2 | 2 |
| Wave | 3 | 4 | 3 | 4 | 6 | 5 | 4 | 4 | 4 | 3 | 4 |
| Swell | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 |
| Air Temp. (°C) | 14.0 | 15.0 | 15.0 | 14.0 | 13.0 | 12.0 | 13.0 | 19.0 | 20.0 | 19.5 | 20.0 |
| Baro (mb) | 1019.0 | 1018.9 | 1018.0 | 1020.0 | 1019.0 | 1020.0 | 1020.0 | 1015.0 | 1014.0 | 1015.0 | 1016.0 |
| Wind | S | S | S | S | S | S | S | NE 3 | NE 3 | NE 4 | NE 4 |
| Cloud | 3 | 3 | 3 | 4 | 6 | 5 | 5 | Cu 9 | Cu 9 | Cu 9 | C |
| Weather | BC | BC | BC | BC | BC | BC | BC | C | C | C | BC |

| Month | | 10 월 (천 마 산) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 |
| Day | | 10 | 10 | 10 | 10 | 11 | 11 | 11 | 11 |
| Item | Time / Z(m) | 1710 | 1815 | 2010 | 2255 | 0110 | 0410 | 0620 | 0920 |
| T | 0 | 22.00 | 22.80 | 22.20 | 22.50 | 20.00 | 20.50 | 20.30 | 20.70 |
| | 10 | 21.51 | 21.43 | 21.53 | 20.28 | 19.61 | 20.38 | 20.12 | 19.84 |
| | 20 | 20.77 | 22.46 | 22.57 | 19.79 | 19.58 | 20.29 | 19.58 | 20.44 |
| | 30 | 20.60 | 22.12 | 22.20 | 20.55 | 20.10 | 20.48 | 20.06 | 20.76 |
| | 50 | 10.41 | 19.02 | 15.44 | 20.72 | 16.40 | 17.43 | 17.07 | 16.35 |
| | 75 | — | 19.43 | 14.88 | 15.40 | 14.66 | 15.00 | 15.05 | 14.51 |
| | 100 | — | 3.06 | 14.66 | 13.40 | 12.24 | 12.80 | 14.18 | 11.08 |
| | 125 | — | — | 12.13 | 11.44 | 11.19 | 11.36 | 9.98 | 6.77 |
| | 150 | — | — | 7.21 | 11.66 | 10.48 | 13.51 | 6.50 | 4.25 |
| | 200 | — | 2.28 | 2.28 | 10.44 | 9.26 | 9.94 | 3.13 | 3.72 |
| ℃ | 250 | — | — | 1.29 | 7.38 | 3.81 | 4.53 | 1.18 | 1.18 |
| | 300 | — | — | — | 1.32 | 0.67 | 1.07 | 1.87 | 3.15 |
| | 400 | — | — | 0.41 | 0.72 | 0.70 | 0.58 | 0.74 | 0.58 |
| | 500 | — | — | 0.42 | 0.42 | 0.73 | 0.40 | 0.31 | 0.35 |
| | Botm | — | — | — | — | — | — | — | — |
| S | 0 | 30.75 | 32.89 | 33.09 | 33.60 | 33.49 | 33.43 | 33.42 | 33.55 |
| | 10 | 33.22 | 32.85 | 33.05 | 33.62 | 33.47 | 33.43 | 33.40 | 33.52 |
| | 20 | 33.15 | 32.85 | 33.20 | 33.57 | 33.58 | 33.40 | 33.37 | 33.51 |
| | 30 | 33.20 | 32.86 | 33.22 | 33.63 | 33.59 | 33.52 | 33.58 | 33.68 |
| | 50 | 34.26 | 33.69 | 34.22 | 33.67 | 34.35 | 34.02 | 34.38 | 34.31 |
| | 75 | — | 34.24 | 34.26 | 34.42 | 34.47 | 34.42 | 34.40 | 34.45 |
| | 100 | — | 34.22 | 34.28 | 34.34 | 34.43 | 34.44 | 34.43 | 34.34 |
| | 125 | — | 32.93 | 34.18 | 34.45 | 34.37 | 34.36 | 34.30 | 34.10 |
| | 150 | — | 33.93 | 34.18 | 34.18 | 34.30 | 34.44 | 34.14 | 34.03 |
| | 200 | — | 34.00 | 34.02 | 34.29 | 34.25 | 34.32 | 34.01 | 34.01 |
| ‰ | 250 | — | — | 34.01 | 34.37 | 34.03 | 34.06 | 33.98 | 34.03 |
| | 300 | — | — | 34.28 | 34.04 | 34.64 | 34.02 | 34.03 | — |
| | 400 | — | — | 34.03 | 34.04 | 34.05 | 34.04 | 34.03 | 34.04 |
| | 500 | — | — | 33.03 | 34.02 | 34.07 | 34.04 | 34.04 | 34.05 |
| | Botm | — | — | — | — | — | — | — | — |
| Depth(m) | | 53 | 220 | — | — | — | — | — | — |
| Water Trans. | | 10 | 10 | — | — | — | — | 18 | 22 |
| Waetr Color | | 3 | 3 | — | — | — | — | 2 | 3 |
| Wave | | — | — | — | — | — | — | — | — |
| Swell | | — | — | — | — | — | — | — | — |
| Air Temp. (°C) | | — | — | — | — | — | — | — | — |
| Baro. (mb) | | — | — | — | — | — | — | — | — |
| Wind | | — | — | — | — | — | — | — | — |
| Cloud | | — | — | — | — | — | — | — | — |
| Weather | | — | — | — | — | — | — | — | — |

12 월 (천 마 산 호)

| 04 | 05 | 06 | 07 |
|---|---|---|---|
| 10 | 12 | 12 | 12 |
| 1200 | 0825 | 0945 | 1130 |
| 13.00 | 12.80 | 12.40 | 12.57 |
| 13.51 | 12.59 | 12.29 | 12.55 |
| 13.17 | 14.20 | 12.36 | 14.21 |
| 13.11 | 14.12 | 12.44 | 14.95 |
| 12.84 | 13.44 | 12.34 | 13.84 |
| — | 8.27 | 9.24 | 14.21 |
| — | 5.91 | 7.40 | 13.49 |
| — | 3.65 | 1.50 | 13.99 |
| — | 2.38 | 1.30 | 3.37 |
| — | 1.69 | 1.23 | 1.15 |
| — | — | 0.85 | 1.04 |
| — | — | 0.65 | 1.01 |
| — | — | 0.68 | 1.01 |
| — | — | 1.96 | — |
| — | — | — | — |
| — | 34.18 | 34.02 | 33.87 |
| 33.78 | 34.18 | 33.98 | 33.87 |
| 33.58 | 34.05 | 34.01 | 33.89 |
| 33.87 | 34.11 | 34.04 | 33.88 |
| 33.80 | 33.96 | 33.99 | 34.02 |
| — | 34.17 | 34.09 | 33.92 |
| — | 34.07 | 34.16 | 34.12 |
| — | 34.01 | 33.99 | 34.12 |
| — | 33.99 | 33.61 | 33.99 |
| — | — | 33.97 | 33.98 |
| — | — | 34.00 | 34.02 |
| — | — | 33.97 | 34.04 |
| — | — | 33.99 | 34.05 |
| — | — | — | — |
| — | — | — | — |
| 58 | 210 | 720 | 1410 |
| 13 | 12 | 10 | 12 |
| 3 | 3 | 3 | 3 |
| — | — | — | — |
| — | — | — | — |
| — | — | - | — |
| — | — | — | — |
| — | — | — | — |
| — | — | — | — |

# 102선 해 양 관 측 성 적

## Oceanographic Data, Line 102

11월(November) 조사선(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 2 | 0655 | 100 | 2 | 24 | W 3 | W 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1021.3 | 18.0 | | Ns | 9 | R |

OBSERVED

| Z<br>*m* | T<br>C | S<br>‰ | $O_2$<br>% | $PO^4$ P<br>μg-at/L | $NO_2$ N<br>μg-at/L | $SiO_2$ Si<br>μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.22 | — | — | — | — | — | 8.25 |
| 10 | 18.24 | — | — | — | — | — | 8.18 |
| 20 | 18.23 | — | — | — | — | — | 8.19 |
| 30 | 18.23 | — | — | — | — | — | 8.22 |
| 50 | 18.03 | — | — | — | — | — | 8.03 |
| 75 | 11.78 | — | — | — | — | — | 7.90 |
| 100 | 6.64 | — | — | — | — | — | — |

# 103선 해 양 관 측 성 적

## Oaenographic Data Line 103

| Month | | 4 월 (계 림 호) | | | | | | | 6 월 (계 림 호) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 04 | 05 | 06 | 07 |
| Day | | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| Item | Time / Z(m) | 0835 | 0930 | 1100 | 1250 | 1450 | 1655 | 1925 | 0515 | 0915 | 1040 | 1200 |
| T ℃ | 0 | 14.92 | 15.82 | 15.12 | 15.51 | 13.92 | 13.50 | 14.20 | 18.10 | 18.50 | 16.50 | 18.50 |
| | 10 | 14.80 | 14.36 | 14.40 | 15.22 | 12.96 | 12.62 | 13.39 | 17.24 | 16.40 | 16.74 | 17.39 |
| | 20 | 13.68 | 13.41 | 14.72 | 14.29 | 12.72 | 11.24 | 12.26 | 14.17 | 11.57 | 14.05 | 15.76 |
| | 30 | 13.18 | 12.21 | 14.92 | 13.07 | 12.19 | 11.14 | 11.41 | 9.30 | 6.83 | 9.61 | 10.92 |
| | 50 | 12.09 | 12.10 | 13.40 | 12.18 | 11.30 | 11.08 | 11.29 | 7.35 | 6.08 | 7.10 | 8.09 |
| | 75 | 10.38 | 11.07 | 12.50 | 11.29 | 11.06 | 10.99 | 11.08 | 4.51 | 3.59 | 3.28 | 4.33 |
| | 100 | 8.62 | 6.22 | 12.36 | 11.79 | 10.96 | 10.69 | 10.58 | — | 3.50 | 2.54 | 2.62 |
| | 125 | | | | | | | | | 2.76 | 6.40 | 1.86 |
| | 150 | — | 2.17 | — | 6.81 | 10.19 | 9.97 | 9.20 | — | 2.64 | 2.07 | 1.60 |
| | 200 | — | 1.14 | — | 2.89 | 5.72 | 7.04 | 9.08 | — | — | 1.37 | 1.22 |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| S ‰ | 0 | 34.55 | 34.54 | 34.63 | 34.57 | 34.43 | 34.40 | 34.42 | 33.83 | 33.85 | 33.44 | 33.25 |
| | 10 | 34.54 | 34.55 | 34.61 | 34.60 | 34.43 | 34.43 | 34.43 | 33.86 | 34.00 | 33.47 | 33.24 |
| | 20 | 37.47 | 34.56 | 34.61 | 34.57 | 34.41 | 34.41 | 34.48 | 34.07 | 34.07 | 34.14 | 34.14 |
| | 30 | 34.47 | 34.56 | 34.61 | 34.42 | 34.47 | 34.42 | 34.44 | 34.08 | 34.02 | 34.08 | 34.19 |
| | 50 | 34.39 | 34.46 | 34.53 | 34.35 | 34.41 | 34.38 | 34.44 | 34.03 | 33.95 | 34.01 | 34.10 |
| | 75 | 34.18 | 34.47 | 34.44 | 34 31 | 34.40 | 34.41 | 34.42 | 33.98 | 34.09 | 33.91 | 34.92 |
| | 100 | 34.15 | 34.21 | 34.61 | 34.31 | 34.38 | 34.33 | 34.35 | — | 33.90 | 33.87 | 33.87 |
| | 125 | — | — | — | — | — | — | — | — | 33.90 | 33.87 | 33.88 |
| | 150 | — | 34.06 | — | 34.25 | 34.31 | 34.30 | 34.33 | — | 33.82 | 33.89 | 33.97 |
| | 200 | — | 34.05 | — | 34.03 | 34.12 | 34.18 | 34.27 | — | — | 33.45 | 33.81 |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | 110 | 205 | 235 | 850 | 1000 | 2150 | 1800 | 82 | 153 | — | — |
| Water Trans. | | 8 | 9 | 9 | 12 | 13 | 12 | — | — | 10.5 | 15 | 14 |
| Water Color | | 4 | 3 | 4 | 3 | 3 | 4 | — | — | 3 | 4 | 4 |
| Wave | | 4 | 2 | 3 | 2 | 3 | 2 | 3 | 6 | 6 | 6 | 6 |
| Swell | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| Air Temp. (°C) | | 18.0 | 14.0 | 16.0 | 18.0 | 18.0 | 18.0 | 17.0 | 22.0 | 21.5 | 22.0 | 21.0 |
| Baro. (mb) | | 1020.0 | 1020.0 | 1020.0 | 1020.0 | 1019.0 | 1018.0 | 1018.0 | 1011.0 | 1011.0 | 1013.0 | 1014.0 |
| Wind | | S | S | S | SE | SE | SW | SW | NE 3 | NE 3 | NE 9 | NNE 8 |
| Cloud | | 5 | 3 | 3 | 3 | 4 | 3 | 2 | Cu 10 | Cu 10 | Cu 9 | Cu 8 |
| Weather | | BC | BC | BC | BC | BC | BC | B | C | C | C | C |

| Month | | 10 월 (천 마 산 호) | | | | |
|---|---|---|---|---|---|---|
| St. No. | | 04 | 05 | 06 | 07 | 08 |
| Day | | 12 | 12 | 12 | 11 | 11 |
| Item | Time / Z(m) | 0500 | 0320 | 0135 | 2215 | 1915 |
| T ℃ | 0 | 20.40 | 21.20 | 22.40 | 21.90 | 21.50 |
| | 10 | 19.83 | 20.64 | 22.73 | 22.48 | 21.33 |
| | 20 | 18.36 | 18.21 | 22.84 | 22.77 | 20.81 |
| | 30 | 15.67 | 15.81 | 23.62 | 22.07 | 20.26 |
| | 50 | 11.36 | 13.80 | 16.31 | 17.23 | 16.85 |
| | 75 | 5.98 | 10.18 | 16.38 | 15.50 | 15.24 |
| | 100 | 3.36 | 3.84 | 15.44 | 15.11 | 12.83 |
| | 125 | — | 2.45 | 14.34 | 11.93 | 11.03 |
| | 150 | — | 1.78 | 5.06 | 5.64 | 10.62 |
| | 200 | — | 1.07 | 1.89 | 1.63 | 9.31 |
| | 250 | — | — | — | 1.10 | 1.41 |
| | 300 | — | — | — | 0.82 | — |
| | 400 | — | — | — | 0.48 | — |
| | 500 | — | — | — | — | — |
| | Botm | — | — | — | — | — |
| S ‰ | 0 | 33.21 | 33.18 | 33.33 | 33.11 | 33.04 |
| | 10 | 33.25 | 33.25 | 33.30 | 33.05 | 33.21 |
| | 20 | 33.75 | 33.65 | 33.87 | 33.17 | 33.62 |
| | 30 | 34.17 | 34.18 | 34.13 | 33.42 | — |
| | 50 | 34.28 | 34.31 | 34.16 | 34.08 | — |
| | 75 | 34.12 | 34.28 | 34.31 | 34.46 | 34.47 |
| | 100 | 34.07 | — | 34.39 | 34.41 | 34.43 |
| | 125 | — | 34.03 | 34.17 | 34.34 | 34.35 |
| | 150 | — | 34.05 | 34.03 | 34.18 | 34.30 |
| | 200 | — | 34.06 | 34.03 | 34.03 | 34.16 |
| | 250 | — | — | — | 34.03 | 34.25 |
| | 300 | — | — | — | 34.02 | — |
| | 400 | — | — | — | 34.04 | — |
| | 500 | — | — | — | — | — |
| | Botm | — | — | — | — | — |
| Depth(m) | | 120 | 200 | 230 | — | 300 |
| Water Trans. | | — | — | — | — | — |
| Water Color | | — | — | | — | — |
| Wavb | | — | — | — | — | — |
| Swell | | — | — | — | | — |
| Air Temp. (°C) | | — | | | | |
| Baro. (mb) | | — | — | — | — | — |
| Wind | | — | — | — | | |
| Cloud | | — | | — | — | — |
| Weather | | — | — | — | | — |

| 10월 (천마산호) | | | 12 월 (천 마 산 호) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 09 | 10 | 11 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 11 | 11 | 11 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 1640 | 1410 | 1135 | 0740 | 0830 | 1050 | 1215 | 1405 | 1620 | 1810 |
| 22.00 | 20.90 | 20.70 | 13.00 | 13.70 | 14.00 | 14.00 | 14.50 | 11.40 | 14.40 |
| 21.50 | 20.87 | 20.40 | 13.87 | 13.66 | 14.24 | 13.94 | 14.51 | 11.34 | 14.34 |
| 21.04 | 20.50 | 20.18 | 13.75 | 13.55 | 14.21 | 14.42 | 14.44 | 14.24 | 14.30 |
| 21.25 | 20.44 | 20.55 | 13.62 | 13.29 | 14.11 | 14.26 | 14.56 | 14.16 | 14.29 |
| 16.48 | 15.88 | 19.60 | 13.47 | 14.43 | 14.09 | 14.14 | 14.54 | 14.43 | 14.26 |
| 14.41 | 14.03 | 13.74 | 13.27 | 11.46 | 14.02 | 14.04 | 14.61 | 14.34 | 14.31 |
| 11.85 | 11.53 | 10.93 | — | 9.24 | 13.24 | 14.02 | 11.79 | 12.13 | 14.27 |
| 10.94 | 10.57 | 7.75 | — | 4.12 | 10.51 | 4.80 | 7.85 | 8.98 | 10.11 |
| 10.05 | 9.63 | 5.07 | — | 6.86 | 6.75 | 2.67 | 4.05 | 3.23 | 6.30 |
| 8.41 | 3.37 | 1.92 | — | — | — | 1.32 | — | 2.42 | 2.25 |
| 4.84 | 1.59 | 1.06 | — | — | — | 0.74 | — | 1.35 | 1.42 |
| 3.92 | 1.49 | 1.14 | — | — | — | 0.93 | — | 0.90 | 0.86 |
| 3.75 | 0.64 | 0.55 | — | — | — | 0.46 | — | 0.62 | 0.59 |
| 0.81 | 0.41 | 0.23 | — | — | — | — | — | — | — |
| — | — | — | 11.23 | 10.49 | 3.67 | — | 1.65 | — | — |
| 33.48 | 33.50 | — | 34.12 | 34.08 | 34.13 | 34.13 | 33.88 | 34.10 | 34.05 |
| 33.45 | 33.56 | 33.65 | 34.11 | 34.01 | 34.13 | 34.12 | 33.97 | 34.09 | 34.05 |
| 33.47 | 33.59 | 33.69 | 34.10 | 34.12 | 34.15 | 34.11 | 34.12 | 34.08 | 34.05 |
| 33.44 | 33.64 | 33.79 | 34.09 | 34.11 | 34.13 | 34.10 | 34.12 | 34.18 | 34.07 |
| 34.35 | 34.08 | 33.94 | 34.08 | 34.14 | 34.13 | 34.11 | 34.11 | 34.09 | 34.07 |
| 34.47 | 34.40 | 33.40 | 33.94 | 34.28 | 34.14 | 34.10 | 34.10 | 34.14 | 34.06 |
| 34.39 | 34.48 | 34.27 | — | 34.22 | 34.13 | 34.03 | 34.14 | 34.31 | 34.23 |
| 34.34 | 34.28 | 34.18 | — | 34.07 | 34.27 | 33.98 | 34.26 | 34.21 | 34.10 |
| 34.30 | 34.28 | 34.03 | — | 34.03 | 34.01 | 32.99 | 34.16 | 34.01 | 33.98 |
| 34.20 | 34.02 | 34.01 | — | — | — | 33.97 | — | 33.97 | 33.98 |
| 34.01 | 34.06 | 34.02 | — | — | — | 34.00 | — | 34.00 | 33.98 |
| 34.25 | 34.04 | 34.05 | — | — | — | 34.28 | — | 34.00 | 34.10 |
| 34.02 | 34.05 | 34.09 | — | — | — | 34.02 | — | 34.01 | 34.01 |
| 34.02 | 34.06 | 34.05 | — | — | — | — | — | — | — |
| — | — | — | — | 34.01 | 34.26 | — | 34.02 | — | — |
| — | — | — | 110 | 207 | 216 | 860 | 210 | 2150 | 1920 |
| 19 | 22 | 26 | 12 | 19 | 16 | 19 | 17 | 20 | — |
| 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

# 104선 해 양 관 측 성 적

## Oceanographic Data, Line 104

| Month | | 4 월 (제 [illegible] 호) | | | | | | | 6월 (제림호) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 09 | 08 | 07 | 06 |
| Day | | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 24 | 25 | 25 | 25 |
| Item | Time / Z(m) | 1443 | 1345 | 1215 | 1000 | 0745 | 0520 | 0300 | 2400 | 0245 | 0525 | 0800 |
| T | 0 | 14.50 | 14.74 | 13.12 | 12.24 | 12.14 | 11.87 | 11.51 | 22.20 | 19.00 | 22.00 | 21.20 |
| | 10 | 14.28 | 14.13 | 12.42 | 11.40 | 11.13 | 11.39 | 11.39 | 20.04 | 20.42 | 16.79 | 13.25 |
| | 20 | 14.21 | 14.51 | 11.43 | 11.13 | [illegible] | 11.09 | 11.33 | 19.00 | 19.36 | 14.74 | 13.15 |
| | 30 | 14.02 | 14.50 | 11.25 | [illegible] | 11.08 | 10.97 | 11.11 | 16.61 | 17.36 | 13.81 | 11.43 |
| | 50 | 11.91 | 13.95 | 10.92 | [illegible] | [illegible] | 10.65 | 10.64 | 13.40 | 14.09 | 12.40 | 8.61 |
| | 75 | 9.86 | 9.33 | 10.83 | [illegible] | 11.74 | [illegible] | [illegible] | 10.35 | 10.68 | 11.44 | 4.11 |
| | 100 | 4.54 | 9.11 | 10.32 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 7.88 | 2.11 |
| | 125 | — | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 4.96 | 1.73 |
| | 150 | — | 4.11 | 8.58 | [illegible] | [illegible] | [illegible] | [illegible] | 6.20 | 6.70 | 2.30 | 1.72 |
| | 200 | — | 4.19 | 4.10 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 1.14 | 1.36 |
| ℃ | 250 | — | — | — | [illegible] | — | — | — | — | — | — | — |
| | 300 | — | — | — | [illegible] | — | — | — | — | — | — | — |
| | 400 | — | — | — | [illegible] | — | — | — | — | — | — | — |
| | 500 | — | — | — | [illegible] | — | — | — | — | — | — | — |
| | Botm | — | — | — | [illegible] | — | — | — | — | — | — | — |
| S | 0 | 34.58 | 34.59 | 34.48 | [illegible] | [illegible] | [illegible] | [illegible] | 34.33 | 33.77 | 32.69 | 33.82 |
| | 10 | 34.59 | 34.61 | 34.39 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 33.94 |
| | 20 | 34.53 | 34.61 | 34.36 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 34.14 |
| | 50 | 34.56 | 34.62 | 34.35 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 34.27 |
| | 50 | 34.38 | 34.58 | 34.32 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 34.14 |
| | 75 | 34.34 | 34.37 | 34.35 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 33.90 |
| | 100 | 34.13 | 34.30 | 34.30 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 33.67 |
| | 125 | — | — | — | — | — | — | — | 34.13 | 34.09 | [illegible] | [illegible] |
| | 150 | — | 34.21 | 34.25 | 34.28 | 34.29 | 34.28 | 34.27 | 34.01 | 33.98 | [illegible] | [illegible] |
| | 200 | — | 34.17 | 34.03 | 34.14 | 34.29 | 34.25 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| ‰ | 250 | — | — | — | — | — | — | — | — | — | — | — |
| | 300 | — | — | — | — | — | — | — | — | — | — | — |
| | 400 | — | — | — | — | — | — | — | — | — | — | — |
| | 500 | — | — | — | — | — | — | — | — | — | — | — |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | 110 | 220 | 600 | 1050 | 720 | 2340 | 1800 | — | — | — | — |
| Water Trans | | 8.2 | 13.2 | 10.8 | [illegible] | 12.2 | — | — | — | — | — | 18 |
| Water Color | | 3 | 3 | 13 | [illegible] | 3 | — | — | — | — | — | 2 |
| Wave | | 2 | 3 | 4 | [illegible] | 2 | 2 | 2 | 3 | [illegible] | 6 | 7 |
| Swell | | 1 | 1 | 5 | [illegible] | 1 | 1 | 1 | [illegible] | [illegible] | [illegible] | 5 |
| Air Temp. (°C) | | 15.0 | 14.0 | 16.0 | 15.0 | 15.0 | 16.0 | 14.2 | 26.0 | 25.0 | 24.0 | 24.0 |
| Baro. (mb) | | 1020.0 | 1020.0 | 1020.0 | 1020.0 | 1020.0 | 1019.0 | 1019.0 | 1006.0 | 1005.0 | 1004.0 | 1004.0 |
| Wind | | S | S | S | S | SW | S | S | NE 7 | NE 5 | NE 7 | NE 9 |
| Cloud | | 3 | 3 | 4 | 5 | 2 | 3 | 3 | Ci 10 | Ci 9 | Ci 9 | Ci 9 |
| Weather | | BC | BC | BC | BC | B | BC | BC | C | C | C | C |

| 6월 (계림호) | | 10 월 (천 마 산) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 05 | 04 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 |
| 25 | 25 | 15 | 15 | 18 | 18 | 18 | 18 | 18 | 18 |
| | 1225 | 0745 | 0850 | 0900 | 1100 | 1330 | 1555 | 1800 | 2000 |
| 21.60 | 21.00 | 19.50 | 19.20 | 22.50 | 22.50 | 22.89 | 20.50 | 18.20 | 19.50 |
| 16.50 | 15.77 | 19.30 | 19.08 | 20.40 | 22.08 | 22.67 | 20.22 | 18.98 | 19.40 |
| 9.88 | 13.04 | 19.07 | 18.60 | 18.02 | 22.88 | — | 19.57 | — | 19.37 |
| 9.78 | 9.39 | 18.49 | 11.60 | 15.78 | 22.60 | 20.30 | 19.50 | 18.40 | 19.33 |
| 7.00 | 9.09 | 14.30 | 11.75 | 14.62 | 18.18 | 18.30 | 17.85 | 16.37 | 16.84 |
| 4.55 | 4.36 | 5.00 | 7.17 | 6.40 | 15.60 | 15.30 | 15.38 | 14.49 | 14.78 |
| 3.79 | 3.78 | 2.68 | 4.10 | 3.09 | 14.65 | 13.21 | 13.22 | 11.83 | 12.23 |
| 2.12 | — | — | — | 1.05 | 11.13 | 11.36 | 11.42 | 10.97 | 11.01 |
| 1.74 | — | — | 1.26 | 1.08 | 10.57 | 11.38 | 10.80 | 10.00 | 10.75 |
| 1.04 | — | — | 0.65 | 0.80 | 5.80 | 9.98 | 12.11 | 9.35 | — |
| — | — | — | — | 0.72 | 5.08 | 10.16 | 11.20 | 4.80 | 5.57 |
| — | — | — | — | 0.53 | 1.70 | 6.78 | 4.08 | 2.02 | 2.30 |
| — | — | — | — | — | 0.72 | 0.93 | 1.20 | 0.85 | 0.80 |
| — | — | — | — | — | 0.43 | 0.75 | 1.70 | 0.03 | 0.17 |
| — | — | — | — | — | — | — | — | — | — |
| 33.92 | 33.90 | 33.42 | 33.46 | 34.21 | 33.84 | 34.00 | 33.71 | 33.73 | 33.53 |
| 34.07 | 34.05 | 33.38 | — | 34.17 | 33.83 | 33.95 | 33.66 | 33.73 | 33.51 |
| 34.19 | 34.18 | 33.40 | 34.40 | 34.21 | 33.84 | — | 33.64 | — | 33.44 |
| 34.13 | 34.12 | — | 33.39 | 34.40 | 33.83 | 33.55 | 33.67 | 33.69 | 33.50 |
| 34.09 | 33.98 | 34.22 | 34.04 | 34.36 | 33.81 | 33.75 | 34.08 | 34.31 | 34.28 |
| 34.02 | 33.63 | 34.09 | 34.08 | 34.14 | 33.39 | 33.46 | 34.48 | 34.49 | 34.48 |
| 34.12 | 33.93 | 34.08 | 34.05 | 34.05 | 34.55 | 34.45 | 34.48 | 34.42 | 34.43 |
| 34.03 | — | — | — | 34.03 | 34.37 | 34.38 | 34.40 | 34.37 | 34.38 |
| 33.96 | — | — | 34.02 | 34.03 | 34.31 | 34.36 | 34.36 | 34.34 | 34.36 |
| 33.92 | — | — | 34.03 | 34.05 | 34.11 | 34.31 | 34.07 | 34.24 | — |
| — | — | — | — | 34.18 | 34.04 | 34.29 | — | 34.07 | 35.00 |
| — | — | — | — | 34.12 | 34.04 | 34.23 | 34.07 | 34.10 | 34.04 |
| — | — | — | — | — | 34.05 | 34.03 | 34.05 | 34.04 | 34.04 |
| — | — | — | — | — | 34.08 | 34.05 | 34.05 | 34.06 | 34.28 |
| — | — | — | — | — | — | — | — | — | — |
| — | 110 | 115 | 220 | 380 | 1050 | 720 | 2340 | — | — |
| 21 | 21 | 14 | 14 | 19 | 20 | 21 | 19 | — | — |
| 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | | — |
| 5 | 6 | — | — | — | — | — | — | — | — |
| 3 | 5 | — | — | — | — | — | — | — | — |
| 24 | 24 | — | — | — | — | — | — | — | — |
| 1004.0 | 1005.0 | — | — | — | — | — | — | — | — |
| NE 5 | NE 10 | — | — | — | — | — | — | — | — |
| Ci 10 | C i9 | — | — | — | — | — | — | — | — |
| C | R | — | — | — | — | — | — | — | — |

| Month | | 12 월 (천 마 산) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| St. No. | | 10 | 09 | 08 | 07 | 06 | 05 | 04 |
| Day | | 13 | 23 | 14 | 14 | 14 | 14 | 14 |
| Item | Time / Z(m) | 2110 | 2330 | 0130 | 0330 | 0540 | 0720 | 0900 |
| T ℃ | 0 | 13.80 | 14.30 | 14.60 | 14.70 | 14.21 | 14.92 | 13.50 |
| | 10 | 13.77 | 14.19 | 14.56 | 14.77 | 14.20 | 14.94 | 13.62 |
| | 20 | 14.14 | 14.21 | 14.26 | 14.09 | 14.16 | 14.83 | 13.52 |
| | 30 | 14.23 | 14.28 | 14.16 | 14.21 | 13.75 | 14.62 | 13.57 |
| | 50 | 14.01 | 14.15 | 14.12 | 14.10 | 14.18 | 14.28 | 13.57 |
| | 75 | 13.99 | 14.10 | 14.11 | 14.08 | 14.09 | 14.17 | 8.83 |
| | 100 | 13.89 | 14.04 | 13.94 | 14.05 | 12.36 | 10.49 | — |
| | 125 | 13.98 | 12.01 | 13.90 | 14.03 | 8.19 | 6.13 | — |
| | 150 | 13.90 | 10.21 | 5.31 | 7.77 | 7.07 | 3.47 | — |
| | 200 | 3.60 | 3.78 | 2.24 | 3.50 | 2.77 | — | — |
| | 250 | 1.64 | 1.68 | 1.78 | 1.47 | 1.17 | — | — |
| | 300 | 1.47 | 1.59 | 0.69 | 2.01 | 0.96 | — | — |
| | 400 | 0.66 | 0.10 | 0.65 | 1.92 | 0.78 | — | — |
| | 500 | — | — | — | — | — | — | — |
| | Botm | — | — | — | — | — | 1.26 | 7.10 |
| S ‰ | 0 | 34.11 | — | 34.11 | 34.05 | 33.13 | 34.12 | 34.09 |
| | 10 | 34.12 | 33.88 | 34.07 | 34.08 | 34.09 | 34.12 | 34.08 |
| | 20 | 34.02 | 34.07 | 34.07 | 34.15 | 34.09 | 34.12 | 34.08 |
| | 30 | 34.00 | 34.07 | 34.06 | 34.07 | 34.08 | 34.11 | 34.10 |
| | 50 | 33.98 | 34.06 | 34.07 | 34.07 | 34.11 | 34.12 | 34.08 |
| | 75 | 34.00 | 34.06 | 34.07 | 34.07 | 34.09 | 34.26 | 34.16 |
| | 100 | 33.84 | 34.07 | 34.21 | 34.10 | 34.31 | 34.09 | — |
| | 125 | 34.17 | 34.32 | 34.44 | 34.26 | 34.17 | 34.19 | — |
| | 150 | 34.11 | 34.19 | 34.03 | 34.08 | 34.06 | 34.04 | — |
| | 200 | 34.10 | 34.04 | 33.99 | 34.01 | 33.99 | — | — |
| | 250 | 34.11 | 33.98 | 33.98 | 33.96 | 33.97 | — | — |
| | 300 | 34.11 | 33.98 | 33.98 | 33.98 | 33.99 | — | — |
| | 400 | 34.11 | 33.98 | 33.80 | 33.99 | 34.03 | — | — |
| | 500 | — | — | — | — | — | — | — |
| | Botm | — | — | — | — | — | 34.06 | 34.09 |
| Depth(m) | | 1860 | 2340 | — | 1050 | 600 | 220 | 110 |
| Water Trans. | | — | — | — | — | — | 12 | 9 |
| Water Color | | — | — | — | — | — | 3 | 3 |
| Wave | | — | — | — | — | — | — | — |
| Swell | | — | — | — | — | — | — | — |
| Air Temp. (°C) | | — | — | — | — | — | — | — |
| Baro. (mb) | | — | — | — | — | — | — | — |
| Wind | | — | — | — | — | — | — | — |
| Cloud | | — | — | — | — | — | — | — |
| Weather | | — | — | — | — | — | — | — |

# 105선 해 양 관 측 성 적

## Oceanographic Data, Line 105

| Month | | 4 월 (계 림 호) | | | | | | | | 6 월 (계림호) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 03 | 04 | 05 |
| Day | | 23 | 23 | 23 | 23 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Item | Time / Z(m) | 0910 | 1950 | 1115 | 1320 | 1600 | 1840 | 2035 | 2240 | 0500 | 0600 | 0750 |
| T ℃ | 0 | 14.12 | 13.21 | 13.12 | 12.71 | 13.31 | 12.32 | 12.10 | 11.62 | 19.0 | 19.3 | 20.0 |
| | 10 | 11.88 | 11.77 | 12.71 | 12.41 | 12.61 | 12.11 | 11.82 | 10.19 | 11.90 | 15.41 | 15.91 |
| | 20 | 11.46 | 10.00 | 12.03 | 11.88 | 12.37 | 11.01 | 11.23 | 10.19 | 11.90 | 11.52 | 10.40 |
| | 30 | 11.28 | 10.00 | 11.59 | 10.28 | 11.69 | 10.91 | 11.06 | 10.16 | 8.00 | 9.14 | 8.38 |
| | 50 | 8.52 | 7.25 | 7.73 | 6.72 | 11.37 | 10.93 | 10.82 | 10.00 | 5.16 | 6.40 | 5.86 |
| | 75 | — | 4.04 | 3.00 | 3.16 | 10.67 | 10.95 | 10.51 | 9.42 | — | 4.90 | 5.10 |
| | 100 | — | 3.83 | 2.44 | 2.59 | 10.43 | 10.85 | 10.72 | 9.41 | — | 3.33 | 3.44 |
| | 125 | — | — | — | — | — | — | — | — | — | 2.05 | 2.47 |
| | 150 | — | 2.38 | 1.45 | 1.32 | 9.06 | 10.19 | 10.23 | 9.04 | — | 1.48 | 1.58 |
| | 200 | — | 0.01 | 0.91 | 0.93 | 4.37 | 8.34 | 9.17 | 7.24 | — | 1.43 | 1.41 |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| S ‰ | 0 | 34.46 | 34.49 | 34.59 | 34.48 | 34.49 | 34.37 | 34.30 | 34.31 | 33.96 | 33.98 | 33.98 |
| | 10 | 34.42 | 34.43 | 34.47 | 34.42 | 34.48 | 34.35 | 34.28 | 34.29 | 34.07 | 34.20 | 34.04 |
| | 20 | 34.34 | 34.38 | 34.44 | 34.41 | 34.47 | 34.35 | 34.31 | 34.31 | 34.07 | 34.26 | 34.09 |
| | 30 | 34.33 | 34.31 | 34.42 | 34.36 | 34.43 | 34.36 | 34.31 | 34.31 | 34.04 | 34.08 | 34.16 |
| | 50 | 34.21 | 34.24 | 34.22 | 34.22 | 34.44 | 34.35 | 34.32 | 34.32 | 33.95 | 33.94 | 34.14 |
| | 75 | — | 34.07 | 34.04 | 34.09 | 34.35 | 34.36 | 34.31 | 34.31 | — | 33.88 | 33.90 |
| | 100 | — | 34.04 | 34.06 | 34.05 | — | 34.34 | 34.33 | 34.33 | — | 33.86 | 33.87 |
| | 125 | — | — | — | — | — | — | — | — | — | 33.84 | 33.85 |
| | 150 | — | 34.03 | 34.04 | 34.03 | 34.26 | 34.30 | 34.27 | 34.27 | — | 33.86 | 33.84 |
| | 200 | — | 34.05 | 34.06 | 34.04 | 34.03 | 34.22 | — | 34.26 | — | 33.87 | 33.86 |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | 48 | 250 | 380 | 810 | 1480 | 1503 | 1140 | 1800 | 48 | — | — |
| Water Trans. | | 12 | 10 | 11.2 | 11.5 | 10.2 | 8.4 | — | — | — | 13 | 12.5 |
| Water Color | | 3 | 3 | 4 | 3 | 2 | 3 | — | — | — | 2 | 2 |
| Wave | | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 2 | 1 | 3 | 2 |
| Swell | | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 1 | 1 | 1 | 1 |
| Air Temp. (°C) | | 14.0 | 14.0 | 14.5 | 15.0 | 15.0 | 15.0 | 14.5 | 14.0 | 20.0 | 21.0 | 20.3 |
| Baro. (mb) | | 1018.0 | 1018.0 | 1018.0 | 1019.0 | 1017.0 | 1018.0 | 1019.0 | 1019.0 | 1006.0 | 1005.0 | 1005.0 |
| Wind | | W | W | W | S | S | S | S | S | NE 2 | SW 2 | SW 2 |
| Cloud | | 3 | 4 | 7 | 3 | 5 | 4 | 5 | 5 | 10 | St 5 | Ci 7 |
| Weather | | BC | BC | BC | BC | BC | BC | BC | BC | C | BC | BC |

| Month | | 6월 (계림호) | | | | 10 월 | | | (천 마 산) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St . No. | | 06 | 07 | 08 | 09 | 11 | 10 | 09 | 08 | 07 | 06 | 05 |
| Day | | 24 | 24 | 24 | 24 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| Item | Time / Z(m) | 1030 | 1335 | 1600 | 1840 | 0005 | 0220 | 0400 | 0730 | 0945 | 1156 | 1445 |
| T | 0 | 21.70 | 22.30 | 22.30 | 22.60 | 18.00 | 20.50 | 19.70 | 21.00 | 22.90 | 23.0 | 18.50 |
| | 10 | 17.81 | 20.82 | 21.74 | 21.35 | — | 20.52 | 20.86 | 21.12 | 22.35 | 22.85 | 17.15 |
| | 20 | 13.53 | 17.77 | 19.45 | 18.38 | — | 20.30 | 19.84 | 20.45 | 22.35 | 22.77 | 17.73 |
| | 30 | 11.58 | 15.52 | 17.17 | 15.93 | — | 20.33 | 19.83 | 20.78 | 22.29 | 22.20 | 14.87 |
| | 50 | 12.34 | 14.11 | 13.83 | 15.70 | 15.94 | 19.40 | 19.43 | 19.75 | 17.43 | 15.36 | 8.38 |
| | 75 | 5.47 | 13.60 | 16.61 | 15.07 | 14.83 | 15.41 | 15.67 | — | 15.13 | 14.25 | 4.34 |
| | 100 | 4.01 | 7.34 | 10.89 | 11.50 | 12.50 | 14.30 | 14.32 | 14.55 | 13.08 | 5.83 | 2.22 |
| | 125 | 3.09 | 6.54 | 14.34 | 10.34 | — | 11.47 | 12.15 | 11.80 | 6.11 | 4.35 | 1.52 |
| | 150 | 2.21 | 4.43 | 7.53 | 8.55 | — | 10.93 | 10.51 | 7.37 | 4.18 | 2.58 | 1.00 |
| | 200 | 1.20 | 1.51 | 3.15 | 3.74 | 10.31 | 8.74 | 3.73 | 5.80 | 4.75 | 1.96 | 0.60 |
| ℃ | 250 | — | — | — | — | 7.02 | 2.95 | 3.66 | 2.48 | 4.30 | 1.14 | 0.55 |
| | 300 | — | — | — | — | 2.51 | 0.88 | 3.65 | 2.01 | 4.97 | 1.01 | 0.52 |
| | 400 | — | — | — | — | 0.92 | 0.65 | 0.96 | 0.73 | 0.65 | 1.71 | — |
| | 500 | — | — | — | — | 0.58 | 0.43 | 0.54 | 0.13 | 0.44 | 0.68 | — |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| S | 0 | 33.72 | 33.68 | 34.23 | 34.13 | 33.75 | 33.68 | 33.62 | 33.58 | 33.95 | 34.17 | 33.28 |
| | 10 | 33.91 | 34.06 | 34.24 | 34.19 | — | — | 33.59 | 33.58 | 33.94 | 34.14 | 33.27 |
| | 20 | 34.03 | 34.08 | 34.32 | 34.30 | — | 33.75 | 33.60 | 33.58 | 34.09 | 34.15 | 33.27 |
| | 30 | 34.22 | 34.31 | 34.25 | 34.32 | — | 33.65 | 33.58 | 33.58 | 34.17 | 34.16 | 33.95 |
| | 50 | 33.85 | 34.31 | 34.32 | 34.44 | 34.40 | 34.20 | 33.70 | 33.68 | 34.06 | 34.37 | 33.96 |
| | 75 | 33.96 | 34.22 | 34.26 | 34.34 | 34.49 | 34.42 | 34.47 | — | 34.28 | 34.32 | 34.07 |
| | 100 | 33.88 | 34.08 | 34.22 | 34.28 | 34.46 | 34.50 | 34.38 | 34.44 | 34.40 | 34.04 | 33.99 |
| | 125 | 33.86 | 34.05 | 34.19 | 34.25 | — | 34.41 | 34.38 | 34.29 | 33.99 | 33.97 | 33.99 |
| | 150 | 33.86 | 33.87 | 34.04 | 34.10 | — | — | 34.30 | 34.17 | 34.02 | 34.00 | 34.00 |
| | 200 | 33.86 | 33.86 | 33.88 | 33.91 | 34.30 | 34.25 | 34.43 | 33.97 | 34.24 | 34.00 | 34.01 |
| ‰ | 250 | — | — | — | — | 34.19 | 34.06 | 34.30 | 34.02 | 33.99 | 34.00 | 34.02 |
| | 300 | — | — | — | — | 34.02 | 34.03 | 34.05 | 33.98 | 33.99 | 33.98 | 34.03 |
| | 400 | — | — | — | — | — | 33.71 | 34.04 | 33.92 | 34.00 | 34.00 | — |
| | 500 | — | — | — | — | 34.05 | 34.04 | — | 33.99 | 34.02 | 34.01 | — |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | — | — | — | — | — | — | — | — | — | — | 390 |
| Water Trans. | | 13.5 | 21 | 16 | 20.5 | 0 | — | — | 19 | 25 | 15 | 18 |
| Water Color | | 3 | 2 | 2 | 2 | 0 | — | — | 2 | 2 | 3 | 3 |
| Wave | | 1 | 2 | 2 | 2 | — | — | — | — | — | — | — |
| Swell | | 1 | 1 | 1 | 1 | — | — | — | — | — | — | — |
| Air Temp. (°C) | | 20.3 | 22.0 | 27.0 | 26.0 | — | — | — | — | — | — | — |
| Baro. (mb) | | 1007.0 | 1008.0 | 1007.0 | 1006.0 | — | — | — | — | — | — | — |
| Wind | | SE 3 | SE 3 | SE 3 | SE 2 | — | — | — | — | — | — | — |
| Cloud | | Ci 7 | Ci 8 | Ci 8 | Ci 9 | — | — | — | — | — | — | — |
| Weather | | BC | C | C | C | — | — | — | — | — | — | — |

| 10월 (천마산) | | 12 월 (천 마 산) | | | | | |
|---|---|---|---|---|---|---|---|
| 04 | 03 | 03 | 04 | 05 | 06 | 07 | 08 |
| 19 | 19 | 17 | 17 | 17 | 17 | 17 | 17 |
| 1700 | 1820 | 0700 | 0745 | 0850 | 1130 | 1340 | 1540 |
| 17.70 | 19.00 | 13.10 | 12.80 | 13.40 | 14.10 | 14.20 | 13.90 |
| 16.83 | 18.95 | 13.16 | 13.00 | 13.46 | 14.18 | 14.28 | 13.97 |
| 16.40 | 18.69 | 12.34 | 13.14 | 13.29 | 14.07 | 14.14 | 13.32 |
| 11.46 | 16.32 | 12.14 | 12.75 | 13.17 | 14.06 | 13.97 | 13.04 |
| 6.98 | — | — | 12.99 | 10.27 | 12.33 | 12.26 | 10.28 |
| 5.96 | — | — | 8.13 | 8.20 | 11.32 | 12.34 | 9.64 |
| 3.16 | — | — | 2.62 | 5.33 | 10.33 | 11.26 | 7.39 |
| 1.92 | — | — | 1.49 | 2.25 | 9.25 | 10.39 | 5.28 |
| 0.99 | — | — | 1.17 | 1.09 | 8.31 | 10.19 | 4.23 |
| 0.81 | — | — | — | 1.03 | 8.18 | 9.40 | 3.21 |
| — | — | — | — | 1.07 | 5.30 | 7.46 | 2.13 |
| — | — | — | — | 0.88 | 3.32 | 5.41 | 1.27 |
| — | — | — | — | — | 1.03 | 2.25 | 0.96 |
| — | — | — | — | — | — | — | — |
| — | 10.97 | 12.06 | 0.77 | — | — | — | — |
| 33.23 | 33.35 | 34.08 | 34.21 | 34.22 | 34.13 | 33.90 | 34.11 |
| 33.20 | 33.33 | 34.10 | 34.17 | 34.16 | 33.93 | 34.12 | 33.57 |
| 33.64 | 33.35 | 34.09 | 34.17 | 34.14 | 33.91 | 33.90 | 34.12 |
| 33.86 | 33.57 | 34.07 | 34.16 | 34.15 | 33.99 | 34.11 | 33.89 |
| 34.15 | — | — | 34.16 | 34.15 | 33.90 | 34.11 | 33.88 |
| 34.06 | — | — | 34.12 | 34.18 | 33.94 | 34.14 | 34.17 |
| 33.99 | — | — | 34.00 | 33.98 | 34.10 | 34.21 | 33.80 |
| 33.99 | — | — | 33.99 | 34.11 | 34.11 | 34.10 | 33.92 |
| 33.98 | — | — | 33.97 | 34.17 | 34.01 | 34.15 | 33.88 |
| 34.00 | — | — | — | 33.99 | 34.06 | 34.20 | 34.04 |
| — | — | — | — | 33.99 | 34.00 | 33.91 | 34.03 |
| — | — | — | — | 33.98 | 33.92 | 34.17 | 34.14 |
| — | — | — | — | — | 34.03 | 34.11 | 34.11 |
| — | — | — | — | — | — | — | — |
| — | 33.93 | 34.06 | 34.07 | — | — | — | — |
| 248 | 48 | 42 | 250 | 380 | 810 | 1490 | 1520 |
| — | — | 12 | 13 | 10 | 11 | 12 | 13 |
| 3 | — | 3 | 3 | 3 | 3 | 4 | 4 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| 18.5 | 18.4 | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

# 106선 해 양 관 측 성 적

## Oceanographic Data Line 106

| Month | 4 월 (계 림 호) | | | | | | | | 6월 (계림호) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 09 | 08 | 07 |
| Day | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 23 | 23 | 23 |
| Item \ Time / Z)m) | 0720 | 0320 | 0900 | 1110 | 1315 | 1520 | 1720 | 1910 | 0650 | 0920 | 1200 |
| T °C 0 | 11.20 | 10.31 | 9.50 | 10.21 | 11.12 | 12.81 | 10.52 | 12.93 | 20.20 | 20.00 | 19.20 |
| 10 | 10.68 | 10.86 | 8.53 | 9.37 | 9.30 | 12.54 | 12.04 | 12.81 | 20.43 | 18.61 | 18.64 |
| 20 | 7.78 | 9.20 | 8.08 | 8.49 | 9.01 | 11.31 | 11.29 | 11.14 | 19.11 | 12.17 | 13.22 |
| 30 | 10.43 | 7.90 | 7.19 | 7.91 | 8.93 | 11.47 | 11.31 | 11.62 | 13.37 | 9.57 | 6.11 |
| 50 | 10.41 | 4.63 | 5.27 | 5.37 | 8.24 | 9.84 | 11.89 | 11.96 | 10.54 | 5.12 | 3.80 |
| 75 | — | 4.07 | 4.14 | 3.37 | 6.91 | 5.54 | 6.84 | 11.39 | 7.05 | 3.27 | 2.66 |
| 100 | — | 3.88 | 2.90 | 2.53 | 6.43 | 2.50 | 3.83 | 9.60 | 4.41 | 3.24 | 1.53 |
| 125 | — | — | — | — | — | — | — | — | 3.77 | 2.77 | 1.77 |
| 150 | — | 4.16 | 2.33 | 1.29 | 5.24 | 1.23 | 1.53 | 7.54 | 2.31 | 2.07 | 1.63 |
| 200 | — | 3.86 | 1.12 | 0.81 | 4.86 | 1.30 | 1.27 | 3.48 | 0.96 | 0.83 | 1.40 |
| 250 | — | — | — | — | — | — | — | — | — | — | — |
| 300 | — | — | — | — | — | — | — | — | — | — | — |
| 400 | — | — | — | — | — | — | — | — | — | — | — |
| 500 | — | — | — | — | — | — | — | — | — | — | — |
| Botm | — | — | — | — | — | — | — | — | — | — | — |
| S ‰ 0 | 34.47 | 34.42 | 34.21 | 34.26 | 34.22 | 34.41 | 34.44 | 34.49 | 33.96 | 33.90 | 33.87 |
| 10 | 34.39 | 34.39 | 34.20 | 34.26 | 34.22 | 34.48 | 34.44 | 34.50 | 33.69 | 33.84 | 33.90 |
| 20 | 34.30 | 34.24 | 34.15 | 34.27 | 34.20 | 34.39 | 34.45 | 34.51 | 34.14 | 34.06 | 33.93 |
| 30 | 34.31 | 34.22 | 34.16 | 34.22 | 34.20 | 34.49 | 34.44 | 34.51 | 34.25 | 34.04 | 33.87 |
| 50 | 34.37 | 34.07 | 34.06 | 34.21 | 34.25 | 34.13 | 34.43 | 34.47 | 34.18 | 34.89 | 33.83 |
| 75 | — | 33.99 | 34.05 | 34.01 | 34.01 | 34.19 | 34.25 | 34.43 | 33.97 | 33.82 | 33.80 |
| 100 | — | 34.98 | 34.99 | 34.01 | 33.99 | 34.07 | 34.10 | 34.32 | 33.85 | 33.89 | 33.78 |
| 125 | — | — | — | — | — | — | — | — | 33.82 | 33.85 | 33.79 |
| 150 | — | 34.03 | 34.00 | 34.01 | 34.02 | 34.01 | 34.05 | 34.09 | 33.80 | 34.71 | 33.83 |
| 200 | — | 34.05 | 34.02 | 34.08 | 34.03 | 34.04 | 34.06 | 34.05 | 33.33 | 33.87 | 33.79 |
| 250 | — | — | — | — | — | — | — | — | — | — | — |
| 300 | — | — | — | — | — | — | — | — | — | — | — |
| 400 | — | — | — | — | — | — | — | — | — | — | — |
| 500 | — | — | — | — | — | — | — | — | — | — | — |
| Botm | — | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | 58 | 320 | 710 | 1120 | 1620 | 1060 | 1800 | 2250 | — | — | — |
| Watert Trans. | 9 | 10 | 11 | 9 | 9 | 9 | 12 | — | 12.5 | 12.7 | 15 |
| Water Color | 5 | 6 | 3 | 4 | 3 | 3 | 3 | — | 2 | 3 | 3 |
| Wave | 3 | 4 | 3 | 4 | 2 | 4 | 4 | 4 | 1 | 2 | 2 |
| Swell | 2 | 2 | 1 | 2 | 2 | 4 | 4 | 4 | 1 | 1 | 1 |
| AirTemp. (°C) | 11.2 | 12.2 | 13.3 | 13.5 | 14.2 | 13.2 | 15.1 | 13.9 | 21.0 | 22.0 | 21. |
| Baro. (mb) | 1012.0 | 1012.0 | 1013.0 | 1014.0 | 1012.0 | 1012.0 | 1011.0 | 1012.0 | 1006.0 | 1007.0 | 1007.0 |
| Wind | NW | NW | NW | NW | NW | NW | NW | W | SE. 2 | SE. 2 | SE. 2 |
| Cloud | 7 | 3 | 1 | 2 | 3 | 4 | 7 | 9 | 0 | 0 | 0 |
| Weather | BC | BC | B | B | BC | BC | BC | C | B | B | B |

| 6월 (계림호) | | | | | 10월 (천마산) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 06 | 05 | 04 | 03 | 02 | 02 | 03 | 04 | 05 | 06 | 07 |
| 23 | 23 | 23 | 23 | 24 | 23 | 23 | 23 | 23 | 23 | 23 |
| 1435 | 1700 | 1940 | 2200 | 0145 | 0710 | 0600 | 0920 | 1135 | | 1555 |
| 20.30 | 20.00 | 20.50 | 20.10 | 19.80 | 17.50 | 17.50 | 16.60 | 17.30 | 17.60 | 19.60 |
| 18.14 | 19.33 | 19.21 | 16.54 | 16.36 | 16.85 | 17.41 | 16.90 | 17.05 | 17.45 | 18.27 |
| 17.61 | 10.47 | 10.89 | 15.67 | 12.38 | 17.70 | 17.11 | 17.07 | 16.99 | 17.55 | 19.13 |
| 18.67 | 9.10 | 8.58 | 17.04 | 9.54 | 17.36 | 13.90 | 13.35 | 13.31 | 17.79 | 19.28 |
| 6.26 | 6.55 | 6.86 | 6.11 | 5.51 | 8.34 | 6.45 | 7.61 | 7.47 | 9.79 | 7.67 |
| 3.23 | 3.83 | 3.90 | 4.08 | — | — | 2.83 | 3.21 | 7.28 | 4.70 | 4.68 |
| 1.86 | 3.38 | 2.72 | 4.26 | — | — | 1.74 | 1.94 | 3.17 | 2.54 | 4.77 |
| 2.41 | 1.85 | 2.13 | 2.06 | — | — | 0.99 | 1.23 | 1.85 | 1.47 | 4.63 |
| 1.19 | 1.21 | 1.30 | 1.35 | — | — | 0.68 | 0.79 | 1.20 | 1.16 | 3.25 |
| 0.72 | 0.90 | 1.31 | 1.15 | — | — | 0.65 | 0.59 | 0.72 | 0.82 | 1.22 |
| — | — | — | — | — | — | 0.76 | 0.57 | 0.59 | 0.82 | 0.80 |
| — | — | — | — | — | — | 0.69 | 0.48 | 0.58 | 0.47 | 0.72 |
| — | — | — | — | — | — | — | 0.39 | 0.28 | 0.38 | 0.81 |
| — | — | — | — | — | — | — | 0.37 | 0.94 | 0.39 | 0.75 |
| 33.94 | 33.99 | 33.99 | 33.98 | 33.91 | 34.27 | 33.38 | 33.54 | 34.44 | 33.52 | 33.79 |
| 33.68 | 33.98 | 33.95 | 34.01 | — | — | 33.35 | 33.51 | 33.40 | 34.59 | 33.79 |
| 34.00 | 33.80 | — | 33.63 | 34.09 | 34.11 | 33.43 | 33.50 | 33.41 | 33.55 | 33.78 |
| 33.98 | 34.03 | 34.04 | 34.04 | 34.11 | 33.90 | 33.64 | 33.84 | 34.13 | 34.89 | 33.80 |
| 33.89 | 33.96 | 33.95 | 33.97 | 33.93 | — | 34.12 | 34.16 | 33.99 | 34.02 | — |
| 33.84 | 33.87 | 33.85 | 33.86 | — | — | 34.01 | 34.01 | 34.01 | 34.04 | 34.02 |
| 33.85 | 33.85 | 33.84 | 33.84 | — | — | 34.00 | 33.98 | 34.02 | 33.99 | 34.04 |
| 33.87 | 33.85 | 33.85 | 33.83 | — | — | 34.00 | 34.00 | 34.01 | 33.99 | 34.27 |
| 33.85 | 33.86 | 33.86 | 33.85 | — | — | 34.01 | 34.01 | 34.02 | 34.01 | 34.02 |
| 33.89 | 33.85 | 33.86 | 33.87 | — | — | 34.01 | 34.02 | 34.04 | 34.03 | 34.00 |
| — | — | — | — | — | — | 34.00 | 34.04 | 34.04 | 34.03 | 34.01 |
| — | — | — | — | — | — | 34.01 | 34.04 | 34.00 | 34.04 | 34.06 |
| — | — | — | — | — | — | — | 33.27 | 34.01 | 34.04 | 33.99 |
| — | — | — | — | — | — | — | 34.04 | 34.03 | 34.04 | 33.01 |
| — | — | — | — | — | 33.87 | — | — | — | — | — |
| — | — | — | — | 58 | 58 | 380 | 710 | — | — | — |
| 19 | 22 | — | — | — | — | 17 | 20 | 17 | 19 | 12 |
| 2 | 2 | — | — | — | 3 | 3 | 3 | 3 | 3 | 2 |
| 2 | 2 | 2 | 2 | 1 | — | — | — | — | — | — |
| 1 | 1 | 1 | 1 | 1 | — | — | — | — | — | — |
| 22.0 | 22.0 | 20.0 | 20.0 | 20.0 | — | — | — | — | — | — |
| 1009.0 | 1006.0 | 1005.0 | 1005.0 | 1005.0 | — | — | — | — | — | — |
| NW 3 | NW 2 | NE 2 | NE 2 | NE 2 | — | — | — | — | — | — |
| 0 | 0 | 0 | 0 | 0 | — | — | — | — | — | — |
| B | B | B | B | B | — | — | — | — | — | — |

| Month | | 10 월 (천마산) | | | | 12 월 (천마산) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No | | 08 | 09 | 10 | 11 | 02 | 03 | 04 | 05 | 06 | 07 |
| Day | | 23 | 23 | 23 | 24 | 18 | 18 | 18 | 18 | 18 | 18 |
| Item | Time / (Z m) | 1805 | 2010 | 2215 | 0130 | 0830 | 0915 | 1025 | 1220 | 1420 | 1750 |
| T | 0 | 21.20 | 21.40 | 21.10 | 21.20 | 12.30 | 12.50 | 12.20 | 13.80 | 13.40 | 14.10 |
| | 10 | 20.25 | 20.10 | 20.82 | 21.10 | 11.89 | 12.42 | 12.19 | 13.69 | 13.52 | 14.15 |
| | 20 | 21.27 | 21.37 | 21.08 | 21.16 | 12.26 | 12.37 | 13.17 | 13.63 | 13.24 | 13.30 |
| | 30 | 21.17 | 21.36 | 21.03 | 21.27 | 9.82 | 12.28 | 12.80 | 13.52 | 11.59 | 11.71 |
| | 50 | 16.63 | 18.10 | 17.10 | 20.15 | — | 10.92 | 12.99 | 13.47 | 10.90 | 10.82 |
| | 75 | 11.27 | 15.82 | 17.21 | 17.45 | — | 3.92 | 5.33 | 10.09 | 9.91 | 9.15 |
| | 100 | 6.28 | 13.53 | 13.20 | 14.51 | — | 1.99 | 2.87 | 8.74 | 10.20 | 10.10 |
| | 125 | 3.89 | 6.10 | 7.66 | 6.34 | — | 1.09 | 1.79 | 3.27 | 10.22 | 10.10 |
| | 150 | 2.80 | 2.64 | 3.21 | 4.56 | — | 0.99 | 2.47 | 1.80 | 10.12 | 10.01 |
| | 200 | 1.72 | 1.19 | 1.44 | 1.82 | - | 0.77 | 0.75 | 1.13 | 2.19 | 9.82 |
| ℃ | 250 | 1.10 | 1.00 | 1.01 | 2.34 | - - | 0.70 | 0.66 | 0.70 | 0.70 | 1.25 |
| | 300 | 1.04 | 0.79 | 0.71 | 1.10 | - - | — | 0.33 | 0.59 | 0.04 | 1.14 |
| | 400 | 0.62 | 0.59 | 0.46 | 0.58 | | - | 0.73 | 0.61 | 0.07 | 1.13 |
| | 500 | 0.59 | 0.36 | 0.37 | 0.28 | | | — | — | — | — |
| | Botm | — | — | — | — | 8.24 | 0.60 | — | — | — | — |
| S | 0 | 33.87 | 33.89 | 33.92 | 33.94 | 34.27 | 34.07 | 34.12 | 33.14 | 34.24 | 34.19 |
| | 10 | 33.87 | 33.87 | 33.92 | 33.82 | - - - | 34.05 | 34.11 | 33.18 | 34.16 | — |
| | 20 | 33.87 | 33.92 | 33.85 | 33.92 | 34.11 | 34.06 | 34.07 | 34.07 | 34.15 | 34.29 |
| | 30 | 33.86 | 33.94 | 33.83 | 33.86 | 33.90 | 34.06 | 34.06 | 34.14 | 34.14 | 34.11 |
| | 50 | 34.42 | 34.26 | 34.09 | 33.99 | — | 33.92 | 34.12 | 34.14 | 33.97 | 34.21 |
| | 75 | 34.32 | 34.41 | 34.40 | 34.37 | — | 33.97 | 33.90 | 33.60 | 33.96 | 34.03 |
| | 100 | 34.17 | 34.35 | 34.32 | 34.32 | — | 33.93 | 33.96 | 33.88 | 33.94 | 33.97 |
| | 125 | 34.04 | 34.06 | 34.05 | 34.03 | - - | 33.94 | 33.96 | 33.93 | 33.92 | 33.97 |
| | 150 | 34.05 | 33.96 | 33.97 | 33.93 | — | 33.93 | 33.97 | 33.95 | 33.97 | 33.94 |
| | 200 | 34.02 | 33.98 | 33.97 | 33.95 | — | 33.96 | 33.96 | 34.12 | 33.98 | 33.96 |
| ‰ | 250 | 34.04 | 33.98 | 33.99 | 34.00 | - - | 33.98 | 33.93 | 33.49 | — | 34.01 |
| | 300 | 34.04 | 33.99 | 34.04 | 34.02 | - | — | 33.99 | 33.97 | 33.99 | 33.96 |
| | 400 | 34.05 | 33.99 | 34.02 | 34.02 | — | — | 33.95 | 33.98 | 32.60 | 34.00 |
| | 500 | 34.03 | 33.99 | 34.01 | 34.02 | — | — | — | — | — | — |
| | Botm | — | — | — | — | 33.87 | | — | — | — | — |
| Depth(m) | | — | — | - | — | 52 | 200 | 100 | 1125 | 1683 | 1771 |
| Water Trans. | | — | — | - | — | 14 | 11 | 17 | 20 | 15 | 13 |
| Water Color | | - | — | — | - - | 5 | 4 | 2 | 3 | 3 | 3 |
| Wave | | — | — | — | — | - | — | — | — | — | — |
| Swell | | - - | - - | - - | — | - | - - | — | - - | — | — |
| Air Temp. (°C) | | | - - | - - | | | - - | — | — | — | — |
| Baro. (mb) | | - - | — | — | — | — | - | — | — | — | — |
| Wind | | — | — | — | — | — | — | — | — | — | — |
| Cloud | | - | - - | — | — | — | — | — | — | — | — |
| Weather | | | - | | | | | — | | — | — |

# 107선 해 양 관 측 성 적

## Oceanographic Data, Line 107

| Month | | 4 월 (계 림 호) | | | | | | | | 6월 (계림호) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 07 | 01 | 02 |
| Day | | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 21 | 21 | 22 | 22 |
| Item | Time / Z(m) | 1128 | 1038 | 0922 | 0755 | 0545 | 0335 | 0125 | 2325 | 2135 | 0950 | 1100 |
| T ℃ | 0 | 9.40 | 10.42 | 9.20 | 9.92 | 9.00 | 9.00 | 12.21 | 12.30 | 12.30 | 19.40 | 19.30 |
| | 10 | 8.70 | 10.00 | 9.20 | 9.11 | 8.92 | 8.92 | 12.26 | 12.29 | 12.28 | 16.49 | 16.00 |
| | 20 | 8.68 | 8.68 | 8.89 | 8.90 | 8.56 | 8.33 | 11.10 | 12.43 | 12.52 | 11.31 | 12.16 |
| | 30 | 3.61 | 8.28 | 7.89 | 8.61 | 8.04 | 5.75 | 7.09 | 12.32 | 12.21 | 7.05 | 8.71 |
| | 50 | 3.52 | 4.91 | 6.92 | 8.49 | 6.92 | 3.92 | 6.09 | 10.81 | 11.91 | 5.27 | 7.69 |
| | 75 | 3.95 | 3.52 | 6.55 | 7.79 | 5.83 | 2.66 | 3.69 | 7.05 | 10.45 | 3.96 | 5.77 |
| | 100 | — | 3.56 | 5.96 | 7.25 | 3.86 | 2.58 | 2.34 | 3.19 | 8.11 | — | 3.32 |
| | 125 | — | — | — | — | — | — | — | — | — | — | 2.94 |
| | 150 | — | 1.77 | 1.85 | 5.46 | 1.33 | 2.21 | 1.22 | 1.42 | 2.34 | — | 1.67 |
| | 200 | — | 1.50 | 1.56 | 3.88 | 0.97 | 1.11 | 1.42 | 1.24 | 1.34 | — | 1.23 |
| | Botm | 2.89 | — | — | — | — | — | — | — | — | — | — |
| S ‰ | 0 | 34.17 | 34.26 | 34.25 | 34.49 | 34.26 | 34.22 | 34.48 | 34.48 | 34.52 | 33.84 | 33.90 |
| | 10 | 34.21 | 34.25 | — | 34.27 | 34.27 | 34.20 | 34.48 | 34.49 | 34.51 | 33.98 | 34.00 |
| | 20 | 34.22 | 34.24 | 34.25 | 34.26 | 34.25 | 34.18 | 34.52 | 34.49 | 34.50 | 34.04 | 34.09 |
| | 30 | 34.24 | — | 34.24 | 34.27 | 34.22 | 34.11 | 34.46 | 34.49 | 34.50 | 34.00 | 34.09 |
| | 50 | 34.21 | — | 34.17 | 34.13 | 34.12 | 34.04 | 34.02 | 34.39 | 34.46 | 33.88 | 33.09 |
| | 75 | 34.06 | 34.21 | 34.24 | 34.06 | 34.06 | 33.99 | 34.02 | 34.24 | 34.37 | 33.88 | 33.97 |
| | 100 | — | 34.02 | 34.01 | 34.00 | 34.01 | 33.99 | 33.99 | 34.05 | 34.23 | — | 33.97 |
| | 125 | — | — | — | — | — | — | — | — | — | — | 33.72 |
| | 150 | — | 34.00 | 34.00 | 34.01 | 34.03 | 34.02 | 34.02 | 34.03 | 34.01 | — | 33.76 |
| | 200 | — | 34.03 | 34.02 | 34.00 | 34.03 | 34.09 | 34.03 | 34.04 | 34.03 | — | 33.47 |
| | Botm | 34.02 | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | 90 | 855 | 1120 | 1296 | 1080 | 882 | 846 | 1980 | 2142 | 82 | — |
| Water Traus. | | 9.5 | 10 | 10 | 9 | — | — | — | — | — | 12 | 19 |
| Water Color | | 3 | 4 | 3 | 6 | 2 | — | — | — | — | 2 | 3 |
| Wave | | 3 | 3 | 6 | 3 | 2 | 3 | 5 | 4 | 3 | 2 | 2 |
| Swell | | 3 | 2 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 |
| AirTemp. (°C) | | 14.20 | 12.4 | 11.9 | 10.2 | 9.7 | 11.3 | 11.0 | 11.2 | 12.1 | 20 | 22 |
| Baro. (mb) | | 1020.0 | 1020.0 | 1019 | 1019.0 | 1018 | 1018 | 1018 | 1017 | 1012 | 1010 | 1010 |
| Wind | | NW | NW | NW | NW | NW | NW | NE | NE | NW | NE2 | NE2 |
| Cloud | | 2 | 2 | 6 | 4 | 4 | 5 | 5 | 5 | 4 | Ci 2 | Ci 2 |
| Weather | | B | B | BC | BC | BC | BC | BC | BC | Bc | B | B |

| Month | | 6 월 (제 림 호) | | | | | | | 10월 (천마산) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 05 | 04 | 03 | 06 | 07 | 08 | 09 | 01 | 02 | 03 | 04 |
| Day | | 22 | 22 | 22 | 22 | 22 | 23 | 23 | 21 | 21 | 21 | 21 |
| Item | Time / Z(m) | 1230 | 1400 | 1645 | 1915 | 2220 | 0100 | 0340 | 0810 | 0910 | 1030 | 1210 |
| T | 0 | 21.00 | 20.00 | 21.50 | 21.00 | 20.70 | 21.00 | 19.00 | 16.50 | 17.20 | 17.30 | 17.50 |
| | 10 | 12.88 | 16.68 | 17.58 | 19.52 | 18.30 | 18.50 | 19.38 | 17.85 | 17.15 | 17.07 | 17.25 |
| | 20 | 11.15 | 16.47 | 10.47 | 11.96 | 12.53 | 11.50 | 15.67 | 17.77 | 17.15 | 17.05 | 17.45 |
| | 30 | 9.23 | 11.23 | 7.25 | 4.17 | 8.41 | 6.31 | 9.95 | 17.10 | 17.20 | 17.23 | 14.78 |
| | 50 | 7.81 | 8.47 | 3.39 | 2.37 | 2.75 | 4.71 | 4.83 | 4.85 | 6.15 | 6.94 | 6.97 |
| | 75 | 4.49 | 4.16 | 2.23 | 2.21 | 1.94 | 2.17 | 2.64 | 1.55 | 2.77 | 3.52 | 3.75 |
| | 100 | 3.80 | 5.08 | 2.58 | 1.28 | 1.34 | 1.27 | 1.69 | — | 1.67 | 2.40 | 3.24 |
| | 125 | 3.26 | 4.35 | 1.21 | 1.14 | 1.22 | 1.27 | 1.41 | — | 1.03 | 1.74 | 1.94 |
| | 150 | 1.93 | 2.42 | 1.35 | 1.03 | 0.87 | 1.34 | 1.27 | — | 0.85 | 1.20 | 1.17 |
| | 200 | 1.37 | 1.24 | 0.77 | 0.80 | 0.68 | 0.78 | 0.77 | — | 0.65 | 0.69 | 0.71 |
| ℃ | 250 | — | — | — | — | — | — | — | — | 0.56 | 0.53 | 0.53 |
| | 300 | — | — | — | — | — | — | — | — | 0.51 | 0.58 | 0.47 |
| | 400 | — | — | — | — | — | — | — | — | 0.41 | 0.44 | 0.37 |
| | 500 | — | — | — | — | — | — | — | — | 0.38 | 0.53 | 0.35 |
| S | 0 | 34.07 | 33.58 | 33.81 | 34.00 | — | — | 33.58 | 33.42 | 33.34 | 33.33 | 33.35 |
| | 10 | 34.03 | 33.69 | 33.77 | 34.00 | — | — | 33.92 | 33.32 | 33.33 | 33.31 | 33.30 |
| | 20 | 34.10 | 33.71 | 33.91 | — | — | — | 34.03 | 33.33 | 33.34 | 33.30 | 33.30 |
| | 30 | 34.03 | — | 33.83 | 33.89 | — | — | 33.94 | 33.45 | 33.36 | 33.30 | 33.62 |
| | 50 | 34.04 | 34.04 | 33.83 | 33.91 | — | — | 33.79 | 34.02 | 33.97 | 33.94 | 33.99 |
| | 75 | 33.92 | 33.91 | 33.81 | 33.86 | — | — | 33.84 | 33.98 | 34.06 | 33.99 | 34.21 |
| | 100 | 33.85 | 33.93 | 33.85 | 33.89 | — | — | 33.86 | — | 34.00 | 33.98 | 33.99 |
| | 125 | 33.90 | 33.88 | 33.86 | 33.83 | — | — | 33.90 | — | 34.01 | 33.98 | 34.01 |
| | 150 | 33.88 | 33.85 | 33.85 | 33.84 | — | — | 33.83 | — | 34.00 | 33.98 | 34.00 |
| | 200 | 33.97 | 33.95 | 33.86 | 33.86 | — | — | 33.85 | — | 34.03 | 34.01 | 34.02 |
| ‰ | 250 | — | — | — | — | — | — | — | — | 34.02 | 34.02 | 34.04 |
| | 300 | — | — | — | — | — | — | — | — | 34.02 | 34.03 | 34.07 |
| | 400 | — | — | — | — | — | — | — | — | 34.02 | 33.98 | 34.04 |
| | 500 | — | — | — | — | — | — | — | — | 34.03 | 34.02 | 34.01 |
| Depth(m) | | — | — | — | — | — | — | — | 90 | — | — | — |
| Water Trans. | | 15 | 13 | 19 | — | — | — | — | 16 | 13 | 18 | 17 |
| Water Color | | 3 | 2 | 2 | — | — | — | — | 3 | 3 | 3 | 3 |
| Wave | | 2 | 2 | 2 | 2 | 2 | 1 | 1 | — | — | — | — |
| Swell | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | — | — | — | — |
| Air Temp. (°C) | | 22.0 | 21.0 | 22.3 | 24.0 | 20.0 | 19.0 | 19.5 | — | — | — | — |
| Baro. (mb) | | 1008 | 1010 | 1010 | 1008 | 1005 | 1006 | 1006 | — | — | — | — |
| Wind | | NE2 | SE2 | SE2 | SE2 | SE2 | SE2 | SE2 | — | — | — | — |
| Cloud | | Ci1 | St4 | St2 | 0 | 0 | 0 | 0 | — | — | — | — |
| Weather | | B | BC | B | B | B | B | B | — | — | — | — |

12 월 (천 마 산)

| 05 | 06 | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
|---|---|---|---|---|---|---|---|---|
| 21 | 21 | 19 | 19 | 19 | 19 | 18 | 18 | 18 |
| 1410 | 1632 | 0530 | 0430 | 0350 | 0130 | 2330 | 2240 | 1930 |
| 17.60 | 17.20 | 8.90 | 10.80 | 12.40 | 12.00 | 11.40 | 10.20 | 14.30 |
| 17.55 | 17.06 | 8.94 | 10.79 | 12.51 | 12.03 | 11.35 | 10.12 | 14.27 |
| 17.55 | 17.52 | 9.45 | 10.43 | 12.52 | 13.22 | 12.87 | 10.10 | 14.00 |
| 17.50 | 17.57 | 9.29 | 9.72 | 11.54 | 12.36 | 11.53 | 10.01 | 12.09 |
| 5.19 | 8.36 | 8.41 | 6.85 | 9.60 | 13.00 | 10.28 | 10.25 | 10.00 |
| 4.35 | 9.40 | — | 3.25 | 4.30 | 9.22 | 9.05 | 10.18 | 8.90 |
| 4.68 | 7.05 | — | 2.12 | 2.22 | 3.62 | 5.40 | 9.32 | 8.76 |
| 4.04 | 5.59 | — | 2.00 | 1.12 | 2.38 | 3.01 | 6.30 | 10.27 |
| 3.46 | 2.79 | — | 1.93 | 1.09 | 1.14 | 2.02 | 3.41 | 9.28 |
| 0.67 | 0.74 | — | 0.79 | 0.82 | 0.77 | 0.80 | 1.25 | 9.12 |
| 0.66 | 0.59 | — | 0.52 | 0.50 | 0.60 | 0.63 | 0.82 | 7.32 |
| 0.53 | 0.49 | — | 0.49 | 0.44 | 0.42 | 0.39 | 0.66 | 4.19 |
| 0.58 | 0.33 | — | 0.42 | 0.31 | 0.12 | 0.26 | 0.54 | 3.08 |
| 0.00 | 0.34 | — | — | — | — | — | — | — |
| — | — | 5.10 | — | — | — | — | — | — |
| 33.46 | — | 34.06 | 34.08 | 34.10 | 34.14 | 34.11 | 33.97 | 33.96 |
| 33.42 | — | 33.95 | — | 34.06 | 34.13 | 34.09 | 33.98 | — |
| 33.47 | — | 33.93 | 33.97 | 34.09 | 34.11 | 34.09 | 33.95 | — |
| 33.49 | — | 33.06 | 33.90 | 34.08 | 34.13 | 34.02 | 33.97 | 34.13 |
| 33.97 | — | 33.90 | 33.84 | 33.92 | 34.14 | 33.95 | 33.95 | 33.97 |
| 34.00 | — | — | 33.97 | 33.96 | 34.09 | 33.86 | 34.08 | 33.97 |
| 33.98 | — | — | 33.97 | 33.95 | 33.95 | 34.11 | 34.00 | 34.02 |
| 33.99 | — | — | — | 33.95 | 34.08 | 33.97 | 33.93 | 33.99 |
| 33.98 | — | — | 33.66 | 33.96 | 33.97 | 33.97 | 33.38 | 34.08 |
| 34.02 | — | — | — | 34.06 | 33.97 | 33.99 | 33.95 | 33.98 |
| — | — | — | 33.92 | 34.01 | 33.98 | 33.97 | 33.99 | 33.98 |
| 34.04 | — | — | 33.97 | 33.98 | 33.99 | 33.98 | 34.00 | 34.04 |
| 34.00 | — | — | 34.00 | 34.01 | 33.95 | 33.99 | 33.98 | 33.96 |
| 34.01 | — | — | — | — | — | — | — | — |
| — | — | 33.90 | — | — | — | — | — | — |
| 18 | 18 | — | — | — | — | | | |
| 3 | 3 | — | — | — | — | — | 3 | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

# 남 해 해 양 조 사 성 적

# OCEANOGRAPHIC OBSERVATIONS SOUTHERN WATERS

1 9 6 7

# 203선 해 양 관 측 성 적

## Oceanographic Data, Line 203

| Month | | 4 월 창 파 호 | | | 7 월 (북 한 산) | | |
|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 03 | 02 | 01 |
| Day | | 20 | 20 | 20 | 6 | 6 | 6 |
| Item | Time / Z(m) | 1530 | 1700 | 1900 | 1000 | 1130 | 1300 |
| T ℃ | 0 | 12.29 | 11.79 | 14.00 | 20.80 | 21.80 | — |
| | 10 | 11.89 | 11.56 | 13.79 | 19.90 | 21.91 | 21.06 |
| | 20 | 11.82 | 11.44 | 13.64 | 19.80 | 19.79 | 20.18 |
| | 30 | 11.90 | 11.41 | 13.74 | 18.48 | 16.83 | 18.37 |
| | 50 | 11.87 | 10.57 | 13.79 | 16.95 | 14.94 | — |
| | 75 | — | 10.43 | 13.48 | 15.74 | 12.83 | — |
| | 100 | — | — | 12.63 | 14.25 | — | — |
| | Botm | 11.84 | 10.44 | 12.42 | 12.44 | 12.34 | 14.35 |
| S ‰ | 0 | 33.82 | 33.93 | 33.25 | 33.41 | 32.65 | 33.76 |
| | 10 | 33.98 | 33.93 | 33.95 | 34.26 | 32.95 | 33.68 |
| | 20 | 34.11 | 33.89 | 34.22 | 34.38 | 33.51 | 33.82 |
| | 30 | 34.06 | 33.96 | 34.33 | 34.68 | 34.63 | 34.22 |
| | 50 | 33.72 | 33.71 | 34.27 | 34.81 | 34.72 | — |
| | 75 | — | 33.82 | 32.83 | 34.74 | — | — |
| | 100 | — | — | 34.42 | 34.70 | — | — |
| | Botm | 34.06 | 34.31 | 34.24 | 34.36 | 34.32 | 34.55 |
| Depth(m) | | 61 | 95 | 132 | 128 | 100 | 57 |
| Water Trans. | | 10 | 8 | 12 | 13 | 15 | 13 |
| Water Color | | 3 | — | — | 3 | 3 | 3 |
| Wave | | 1.5 | 1.5 | 1.5 | 3 | 3 | 4 |
| Swell | | 4 | 4 | 4 | 4 | 4 | 4 |
| Air Temp. (°C) | | 13.0 | 12.5.0 | 13.0 | 20.6 | 20.8 | 21.0 |
| Baro. (mb) | | — | — | — | 1009 | 1009 | 1009 |
| Wind | | W10 | W10 | W10 | E3 | E3 | E4 |
| Cloud | | Ci6 | Ci9 | Ci9 | St9 | St9 | St7 |
| Weather | | BC | C | C | C | C | Bc |

| Month | | 10 월 (가 라 산) | | | 12 월 (라 라 산) | | |
|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 10 | 02 | 03 |
| Day | | 13 | 13 | 13 | 7 | 9 | 9 |
| Item | Time / Z(m) | 1325 | 1440 | 1610 | 1245 | 1300 | 1505 |
| T ℃ | 0 | 20.21 | 19.29 | 21.42 | 13.15 | 14.17 | 16.70 |
| | 10 | 19.76 | 17.47 | 19.28 | 14.15 | 14.86 | 16.92 |
| | 20 | 19.42 | 15.17 | 17.42 | 13.01 | 14.94 | 16.90 |
| | 30 | 19.45 | 14.36 | 15.06 | 14.21 | 14.80 | 16.90 |
| | 50 | — | 14.15 | 15.03 | — | 14.12 | 17.00 |
| | 75 | — | 20.72 | 20.75 | — | 14.88 | 16.98 |
| | 100 | — | — | 21.17 | — | — | — |
| | Botm | 14.53 | 20.70 | 21.59 | 14.61 | 14.84 | 16.98 |
| S ‰ | 0 | 32.68 | 31.20 | 31.26 | 33.40 | 33.35 | 33.60 |
| | 10 | 32.95 | 30.93 | 31.51 | 33.17 | 33.31 | 33.68 |
| | 20 | 32.97 | 31.55 | 32.36 | 33.15 | 33.31 | 33.69 |
| | 30 | 33.01 | 32.48 | 33.55 | 33.13 | 33.30 | 33.17 |
| | 50 | — | 33.80 | 33.84 | — | 33.24 | 33.62 |
| | 75 | — | 33.80 | 33.80 | 33.21 | 33.21 | 34.78 |
| | 100 | — | — | 33.40 | — | — | — |
| | Botm | 33.59 | 33.71 | 33.62 | 33.06 | 33.19 | 33.40 |
| Depth(m) | | 57 | 91 | 125 | 49 | 98 | 110 |
| Water Trans. | | 15 | 15 | 12 | 9 | 9 | 8 |
| Water Color | | 4 | 3 | 3 | 4 | 4 | 4 |
| Wave | | — | — | — | 4 | 3 | 3 |
| Swell | | — | — | — | 4 | 2 | 2 |
| Air Temp. (°C) | | — | — | — | 4.5 | 4.5 | 4.3 |
| Baro. (mb) | | — | — | — | 1025.5 | 1030.5 | 1031 |
| Wind | | — | — | — | N5 | NW4 | NW4 |
| Cloud | | — | — | — | NS 9 | NS 5 | NS 7 |
| Weather | | — | — | — | C | BC | BC |

# 204선 해 양 관 측 성 적

## Oceanographic Data, Line 204

| Month | | 5 월 (창 파 호) | | | | | |
|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 |
| Day | | 19 | 19 | 19 | 19 | 19 | 19 |
| Item | Time / Z(m) | 0920 | 1130 | 1340 | 1630 | 1840 | 2050 |
| T ℃ | 0 | 17.28 | 17.98 | 17.28 | 16.68 | 16.68 | 16.68 |
| | 10 | 14.74 | 15.26 | 14.94 | 14.64 | 15.90 | 15.23 |
| | 20 | 14.25 | 15.03 | 14.03 | 13.41 | 15.88 | 15.81 |
| | 30 | — | — | 14.25 | 13.24 | 15.82 | 15.22 |
| | 50 | — | — | — | 12.97 | 13.47 | 15.08 |
| | 75 | — | — | — | — | 12.83 | 15.08 |
| | 100 | — | — | — | — | — | 14.74 |
| | Botm | 13.91 | 14.66 | 12.46 | 12.09 | 12.94 | 14.32 |
| S ‰ | 0 | 33.66 | 33.74 | 33.83 | 33.11 | 33.32 | 33.79 |
| | 10 | 33.69 | 33.74 | — | 33.23 | 33.42 | 33.80 |
| | 20 | 33.73 | 33.74 | 33.82 | 33.63 | 34.04 | 34.35 |
| | 30 | — | — | 33.82 | 33.96 | 34.28 | 34.28 |
| | 50 | — | — | — | 34.08 | 33.94 | — |
| | 75 | — | — | — | — | 34.04 | 34.24 |
| | 100 | — | — | — | — | — | 34.37 |
| | Botm | 33.77 | 33.77 | 33.87 | 34.09 | 34.04 | 34.24 |
| Depth(m) | | 40 | 30 | 45 | 81 | 90 | 128 |
| Water Trans. | | 10 | 5 | 10 | 15 | 15 | — |
| Water Color | | — | — | — | — | — | — |
| Wave | | 2 | 2 | 2 | 5 | 5 | 5 |
| Swell | | S 2 | S 2 | S2 | 5 | 2 | 2 |
| Air Temp. (°C) | | 18.8 | 19.8 | 20.4 | 17.2 | 17.0 | 17.4 |
| Baro. (mb) | | | — | - | | | |
| Wind | | SW5 | SW4 | SW4 | NE9 | NW9 | NE10 |
| Cloud | | Cu 9 | Cu 5 | Cu 5 | Cu 9 | Cu 10 | Cu 10 |
| Weather | | C | BC | BC | C | C | C |

| Month | | 7월 (북 한 산) | | | 12월 (창 파 호) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 06 | 05 | 04 | 01 | 02 | 03 | 04 | 05 | 06 |
| Day | | 6 | 6 | 6 | 23 | 23 | 23 | 24 | 24 | 24 |
| Item | Time / Z(m) | 1620 | 1750 | 1920 | 1035 | 1200 | 1315 | 1010 | 1115 | 1220 |
| T ℃ | 0 | 20.00 | 21.00 | 18.80 | 10.68 | 9.35 | 12.78 | 15.36 | 17.55 | — |
| | 10 | 20.40 | 21.52 | 19.16 | 10.67 | 9.36 | 12.86 | 15.37 | 17.53 | 18.21 |
| | 20 | 18.82 | 21.11 | 18.29 | 10.28 | — | 12.82 | 15.37 | 17.51 | 18.16 |
| | 30 | 17.87 | 18.17 | 16.41 | 10.20 | — | 12.76 | 15.41 | 17.42 | 18.12 |
| | 50 | 15.77 | 15.35 | 13.71 | — | — | — | 15.45 | 17.23 | 18.27 |
| | 75 | 14.75 | 16.04 | 14.57 | — | — | — | — | 17.04 | 18.00 |
| | 100 | 14.56 | — | — | — | — | — | — | — | — |
| | Botm | 14.54 | 15.56 | 14.56 | 10.17 | 9.31 | 12.67 | 15.43 | 17.04 | 17.21 |
| S ‰ | 0 | 34.12 | 34.13 | 33.53 | — | — | — | — | — | — |
| | 10 | 34.14 | 34.11 | 33.56 | — | — | — | — | — | — |
| | 20 | 34.58 | 34.12 | 33.82 | — | — | — | — | — | — |
| | 30 | 34.73 | 34.75 | 33.99 | — | — | — | — | — | — |
| | 50 | 34.93 | 35.12 | 34.30 | — | — | — | — | — | — |
| | 75 | 35.07 | 35.12 | 35.08 | — | — | — | — | — | — |
| | 100 | 35.09 | — | — | — | — | — | — | — | — |
| | Botm | 35.09 | 35.11 | 35.09 | — | — | — | — | — | — |
| Depth(m) | | 122 | 96 | 84 | 43 | 27 | 38 | 76 | 86 | 102 |
| Water Trans. | | 13 | 14 | — | 3 | 1 | 3 | 14 | 18 | 19 |
| Water Color | | 3 | 3 | — | 9 | 9 | 7 | 4 | 3 | 3 |
| Wave | | 5 | 5 | 5 | NW3 | NW3 | NW3 | NNW3 | NNW3 | NNW3 |
| Swell | | 4 | 5 | 5 | NW1 | NW1 | NW2 | NNW1 | NNW2 | NNW2 |
| Air Temp. (°C) | | 21.0 | 20.5 | 20.0 | 1.5 | 1.0 | 2.5 | 3.0 | 3.4 | 3.6 |
| Baro. (mb) | | 1010 | 1010 | 1010 | 1026.8 | 1026.9 | 1026.2 | 1029.5 | 1029.4 | 1028.1 |
| Wind | | E5 | E5 | E5 | NW13 | NW13 | NW14 | NNW15 | NNW15 | NNW14 |
| Cloud | | St 9 | St 10 | St 10 | Ac 7 | Ac 6 | As 9 | Ac 5 | Ac 5 | Ac 8 |
| Weather | | C | C | C | BC | BC | C | BC | BC | C |

# 204선 해 양 관 측 성 적

## Oceanographic Data, Line 204

5월(May)

척양호(Chuk YangHo)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 7 | 1537 | 40 | 5 | 8 | SE 2 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1000.6 | 17.0 | 16.8 | Cc | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO^4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μ-gat/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.30 | 33.64 | 6.70 | 0.24 | 0.14 | 33.44 | 8.36 |
| 10 | 14.48 | 33.61 | 6.61 | 0.21 | 0.10 | 7.27 | 8.40 |
| 20 | 13.15 | 33.69 | 6.34 | 0.24 | 0.17 | 9.45 | 8.30 |
| 30 | 12.40 | 33.86 | 5.65 | 0.42 | 0.22 | 11.63 | 8.37 |
| 36 | 12.41 | 33.82 | 5.64 | 0.49 | 0.19 | 11.63 | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 7 | 1641 | 34 | 6 | 6 | SE 2 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1000.0 | 18.0 | 17.6 | Cc | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO^4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.70 | 33.69 | 6.79 | 0.22 | 0.12 | 14.54 | 8.25 |
| 10 | 14.46 | 33.70 | 7.13 | 0.13 | 0.07 | 6.54 | 8.38 |
| 20 | 13.58 | 33.77 | 7.12 | 0.18 | — | 12.36 | 8.42 |
| 30 | 12.32 | 33.93 | 6.05 | 0.27 | 0.15 | 20.36 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 7 | 1808 | 52 | 4 | 7 | S 3 | S 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1000.0 | 16.4 | 15.8 | Sc | 1 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.60 | 33.85 | 6.43 | 0.15 | 0.08 | 9.45 | 8.36 |
| 10 | 14.09 | 33.89 | 6.61 | 0.13 | 0.10 | 13.81 | 8.40 |
| 20 | 12.46 | 33.95 | 6.60 | 0.07 | 0.15 | 16.72 | 8.30 |
| 30 | 11.69 | 34.06 | 6.07 | 0.15 | 0.22 | 19.63 | 8.37 |
| 47 | 11.90 | 34.07 | 6.02 | 0.41 | 0.34 | 10.91 | 8.40 |

7 월(July) 지리산(Chi Ri San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 11 | 0935 | 36 | 5 | 7 | E 2 | E 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | | 22.3 | 20.4 | Sc | 10 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.83 | 33.56 | — | 0.11 | 0.05 | 12.36 | 7.60 |
| 10 | 20.53 | 33.56 | — | 0.13 | 0.06 | 26.17 | 8.00 |
| 20 | 19.75 | 33.57 | — | 0.13 | 0.06 | 33.44 | 8.20 |
| 30 | 19.45 | 33.61 | — | 0.13 | 0.06 | 29.08 | 8.09 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 11 | 0815 | 28 | 5 | 7 | EN 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 2 | | 21.7 | 20.6 | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.06 | 33.53 | 5.54 | 0.15 | 0.06 | 15.99 | 8.00 |
| 10 | 20.42 | 33.54 | 5.75 | 0.06 | 0.06 | 45.80 | 7.70 |
| 20 | 19.88 | 33.57 | 5.23 | 0.13 | 0.09 | 30.53 | 8.20 |
| 25 | 19.70 | 33.60 | — | 0.15 | 0.15 | 29.08 | 8.09 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 11 | 0705 | 47 | 4 | 14 | EN2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 2 | | 21.3 | 20.6 | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.54 | 33.52 | 5.59 | 0.10 | 0.07 | 21.81 | 8.30 |
| 10 | 20.16 | 33.52 | 5.64 | 0.06 | 0.06 | 25.45 | 8.35 |
| 20 | 19.10 | 33.54 | 5.75 | 0.06 | 0.10 | 19.63 | 8.41 |
| 30 | 16.43 | 33.83 | 5.83 | 0.15 | 0.07 | 29.08 | 8.30 |
| 40 | 15.73 | 33.95 | 5.59 | 0.22 | 0.12 | 17.45 | 8.24 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 7 | 0725 | 82 | 3 | 21 | ENE 4 | ENN 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 3 | | 20.7 | 19.8 | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.29 | 33.47 | 5.77 | 0.85 | 0.04 | 11.63 | 8.12 |
| 10 | 18.98 | 33.36 | 5.85 | 0.17 | 0.06 | 10.18 | 8.18 |
| 20 | 16.94 | 33.70 | 6.38 | 0.29 | — | 21.08 | 8.15 |
| 30 | 14.90 | 33.85 | 6.28 | 0.22 | 0.04 | 21.08 | 8.12 |
| 50 | 12.98 | 34.16 | 6.06 | 0.38 | 0.05 | 15.27 | 8.02 |
| 75 | 11.19 | 34.81 | 4.94 | 0.24 | 0.06 | 17.45 | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 7 | 0900 | 100 | 3 | 20 | ENE4 | ENE3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 4 | | 22.1 | 20.7 | Ac | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.21 | 33.88 | — | 0.20 | 0.04 | 19.63 | 8.21 |
| 10 | 22.14 | 33.99 | 5.84 | 0.10 | 0.02 | 9.45 | 8.29 |
| 20 | 20.16 | 33.97 | 6.12 | 0.21 | 0.03 | 2.18 | 8.21 |
| 30 | 18.05 | 34.59 | 5.85 | 0.22 | 0.06 | 2.91 | 8.25 |
| 50 | 15.66 | 34.83 | 4.82 | 0.17 | 0.04 | 10.91 | 8.30 |
| 75 | 14.54 | 34.98 | 5.64 | 0.25 | 0.05 | 20.36 | 8.21 |
| 95 | 14.54 | 34.99 | 5.88 | 0.49 | 0.04 | 17.45 | 8.12 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 7 | 1030 | 135 | 4 | 19 | NNE 4 | NNE 3 |

| Wind | | Baro. | Air Temp | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dyr | Wet | Type | Amount | |
| NNE | 4 | | 22.4 | 21.3 | Ac | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg·at/L | $NO_2$-N μg·at/L | $SiO_2$-Si μg·at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.98 | 34.00 | 6.59 | 0.13 | 0.04 | 5.09 | 8.20 |
| 10 | 21.90 | 34.01 | 6.46 | 0.14 | 0.02 | 10.91 | 8.25 |
| 20 | 20.44 | 34.19 | 5.23 | 0.08 | 0.03 | 16.72 | 8.31 |
| 30 | 19.17 | 34.44 | 5.21 | 0.14 | 0.02 | 21.81 | 8.30 |
| 50 | 16.18 | 34.90 | — | 0.08 | 0.02 | 7.27 | 8.32 |
| 75 | 14.52 | 34.94 | 5.23 | 0.42 | 0.02 | 18.90 | 8.30 |
| 100 | 16.30 | 34.94 | 5.02 | 0.28 | 0.02 | 19.63 | 8.22 |
| 125 | 14.59 | 34.92 | 4.62 | 0.31 | 0.06 | 15.80 | 8.20 |

10 월 (October) 백 두 산 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 11 | 1820 | 42 | | | NW1 | NW1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 1 | 1017.3 | 22.9 | | Cc | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg·at/L | $NO_2$-N μg·at/L | $SiO_2$-Si μg·at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.80 | 33.02 | 5.24 | 0.20 | 0.11 | 17.45 | 7.75 |
| 10 | 22.68 | 32.97 | 5.26 | 0.14 | 0.00 | 17.45 | 8.00 |
| 20 | 22.81 | 33.01 | 5.26 | 0.14 | 0.02 | 13.09 | 8.08 |
| 30 | 21.97 | 33.24 | 4.90 | 0.15 | 0.03 | 13.81 | 7.85 |
| 37 | 19.85 | 33.65 | 4.64 | 0.28 | 0.18 | 27.63 | 7.18 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 11 | 1945 | 32 | | | NW1 | NW1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1016.6 | 20.8 | | Cc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.35 | 33.03 | 5.18 | 0.25 | 0.00 | 22.54 | 7.77 |
| 10 | 22.81 | 32.99 | 5.26 | 0.14 | 0.00 | 21.08 | 8.20 |
| 20 | 22.84 | 32.99 | 5.22 | 0.35 | 0.00 | 50.89 | 8.20 |
| 28 | 22.72 | 32.98 | 4.85 | 0.28 | 0.01 | 28.35 | 8.02 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 11 | 2052 | 45 | | | NW1 | NW1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1066.5 | 21.5 | | Cc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.00 | 32.72 | 5.46 | 0.21 | 0.02 | 46.53 | 8.06 |
| 10 | 22.53 | 32.69 | 5.57 | 0.01 | 0.04 | 18.90 | 7.60 |
| 20 | 22.37 | 32.92 | 5.44 | 0.14 | 0.00 | 24.72 | 8.27 |
| 30 | 22.10 | 33.13 | 5.15 | 0.17 | 0.00 | 15.27 | 8.18 |
| 40 | 19.33 | 33.58 | 4.38 | 0.24 | 0.04 | 22.54 | 7.60 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 16 | 8150 | 78 | 4 | 14 | NE3 | NE1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1019.8 | 17.7 | | Ci | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.30 | 33.27 | 5.46 | 0.15 | 0.04 | 21.81 | 7.83 |
| 10 | 20.36 | 33.12 | 5.57 | 0.07 | — | 12.36 | 8.19 |
| 20 | 20.41 | 33.11 | 5.47 | 0.07 | — | 14.54 | 8.18 |
| 30 | 20.25 | 33.14 | 5.96 | 0.07 | — | 15.99 | 7.75 |
| 50 | 15.45 | 33.62 | 4.80 | 0.06 | 0.01 | 27.63 | 7.82 |
| 75 | 15.25 | 34.27 | 4.12 | 0.04 | 0.02 | 32.72 | 7.95 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 16 | 0945 | 83 | 5 | 12 | SE 3 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1020.1 | 18.1 | | Ci | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.80 | 33.36 | 5.52 | 0.11 | 0.02 | 15.27 | 7.42 |
| 10 | 20.03 | 33.21 | 6.00 | 0.10 | — | 15.99 | 8.00 |
| 20 | 20.62 | 33.80 | 5.93 | 0.10 | — | 15.27 | 8.05 |
| 30 | 20.22 | 33.95 | 5.07 | 0.21 | — | 15.27 | 7.94 |
| 50 | 19.06 | 33.91 | 5.40 | 0.29 | 0.06 | 16.72 | 8.06 |
| 75 | 16.59 | 34.15 | 4.95 | 0.24 | — | 28.35 | 7.72 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 16 | 1255 | 116 | 5 | 13 | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1019.6 | 19.6 | | Ci | 10 | C |

OBSERVED

| Z<br>*m* | T<br>℃ | S<br>‰ | $O_2$<br>% | $PO^4$–P<br>μg-at/L | $NO_2$–N<br>μg-at/L | $SiO_2$–Si<br>μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.25 | 33.52 | 5.88 | 0.10 | — | 11.63 | 7.88 |
| 10 | 20.52 | 33.50 | 5.59 | 0.03 | — | 8.72 | 8.14 |
| 20 | 20.50 | 33.49 | 5.92 | 0.07 | — | 8.72 | 7.85 |
| 30 | 20.45 | 33.50 | 5.32 | 0.08 | — | 13.81 | 7.76 |
| 50 | 19.06 | 33.85 | 5.05 | 0.28 | 0.06 | 25.45 | 7.73 |
| 75 | 16.71 | 34.04 | 4.43 | 0.42 | — | 26.17 | 7.88 |
| 100 | 15.57 | 34.44 | 3.97 | 0.57 | — | 29.08 | 8.10 |
| 110 | 15.52 | 34.56 | 4.12 | 0.46 | — | 31.26 | 7.24 |

# 205선 해 양 관 측 성 적

## Oceanographic Data Line 205

| Month | | 5월 (상 파 호) | | | | | | 7월 (지리산호) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 05 | 06 | 04 | 03 | 02 | 01 | 05 | 06 | 07 | 08 |
| Day | | 18 | 18 | 18 | 19 | 19 | 19 | 10 | 10 | 10 | 10 |
| Item | Time / Z(m) | 2100 | 1800 | 2350 | — | 0540 | 0300 | 0835 | 1025 | 1155 | 1330 |
| T ℃ | 0 | 17.78 | 19.08 | 17.78 | 17.28 | 16.28 | 16.28 | 22.73 | 23.08 | 23.63 | 24.31 |
| | 10 | 16.41 | 17.18 | 17.05 | 15.86 | 14.48 | 14.46 | 22.70 | 22.97 | 23.50 | 24.25 |
| | 20 | 16.70 | 17.02 | 16.89 | 14.38 | 13.89 | 14.49 | 21.93 | 22.97 | 23.28 | 24.16 |
| | 30 | 15.36 | 17.00 | 14.29 | 13.83 | 12.51 | 14.36 | 15.92 | 16.93 | 19.88 | 23.37 |
| | 50 | 14.90 | 16.67 | 13.58 | 13.59 | — | — | 15.44 | 15.67 | 16.54 | 17.45 |
| | 75 | 15.62 | 15.38 | — | — | — | — | 14.63 | 14.94 | 15.13 | 15.24 |
| | 100 | 16.50 | 14.37 | — | — | — | — | — | — | 14.48 | 15.65 |
| | 125 | — | — | — | — | — | — | — | — | — | 15.31 |
| | 150 | — | — | — | — | — | — | — | — | — | 14.50 |
| | Botm | — | — | 13.58 | 13.27 | 12.46 | 13.95 | 14.65 | 14.91 | 14.49 | 14.33 |
| S ‰ | 0 | 34.03 | 34.11 | 34.02 | 34.01 | 33.77 | 33.74 | 33.85 | 33.88 | 33.52 | 33.30 |
| | 10 | 34.34 | 34.23 | 34.14 | 33.87 | 33.74 | 33.79 | 33.85 | 33.87 | 33.55 | 33.28 |
| | 20 | 34.39 | 34.14 | 34.12 | 33.90 | 33.92 | 33.81 | 33.77 | 33.89 | 33.61 | 34.49 |
| | 30 | 34.35 | 34.07 | 33.92 | 33.90 | 33.92 | 33.82 | 33.74 | 34.44 | 34.16 | 33.93 |
| | 50 | 34.21 | 34.00 | 33.90 | 33.95 | — | — | 34.69 | 34.86 | 34.17 | 34.31 |
| | 75 | 34.43 | 34.01 | — | — | — | — | 34.98 | 34.96 | 34.76 | 34.55 |
| | 100 | 34.44 | 34.15 | — | — | — | — | — | — | 34.94 | 34.73 |
| | 125 | — | — | — | — | — | — | — | — | — | 34.95 |
| | 150 | — | — | — | — | — | — | — | — | — | 34.54 |
| | Botm | — | — | 34.07 | 33.90 | 34.01 | 33.84 | 34.98 | 34.97 | 34.94 | 34.90 |
| Depth(m) | | 119 | 125 | 90 | — | 69 | 55 | 98 | 108 | 116 | 176 |
| Water Trans. | | — | 21 | — | — | 10 | 11 | 22 | 19 | 22 | 21 |
| Water Color | | — | — | — | — | — | — | 3 | 3 | 3 | 3 |
| Wave | | 5 | 4 | 4 | 4 | 4 | 2 | — | — | — | — |
| Swell | | 2 | 2 | 2 | 2 | 2 | 1 | — | — | — | — |
| Air Temp. (°C) | | 18.5 | 17.7 | 18.0 | 17.4 | 17.6 | 17.9 | — | — | — | — |
| Baro. (mb) | | — | — | — | — | — | — | — | — | — | — |
| Wind | | Sw9 | Sw9 | Sw9 | Sw9 | Sw9 | Sw5 | — | — | — | — |
| Cloud | | Cu7 | Cu7 | Cu7 | Cu7 | Cu7 | Cu9 | — | — | — | — |
| Weather | | BC | BC | BC | BC | BC | C | — | — | — | — |

| Month | | 12월 (백 두 산호) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 08 | 07 | 06 | 05 | 04 | 03 | 02 | 01 |
| Day | | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| Item | Time / Z(m) | 0840 | 1035 | 1220 | 1355 | 1535 | 1650 | 1805 | 1915 |
| T ℃ | 0 | 18.53 | 18.84 | 18.05 | 17.27 | 15.89 | 15.64 | 13.75 | 10.99 |
| | 10 | 18.49 | 18.31 | 18.10 | 17.29 | 15.89 | 15.66 | 13.75 | 10.98 |
| | 20 | 18.81 | 18.33 | 18.13 | 17.29 | 15.85 | 15.72 | 13.71 | 11.00 |
| | 30 | 18.68 | 18.30 | 18.13 | 17.24 | 15.78 | 15.70 | 13.26 | 10.96 |
| | 50 | 18.66 | 18.22 | 18.19 | 17.14 | 15.70 | 15.74 | — | — |
| | 75 | 18.63 | 18.17 | 18.14 | 17.09 | — | — | — | — |
| | 100 | 18.64 | 18.13 | — | — | — | — | — | — |
| | 125 | 18.41 | — | — | — | — | — | — | — |
| | Botm | 15.66 | 18.18 | 18.04 | 16.69 | 15.70 | 15.55 | 12.88 | 10.94 |
| S ‰ | 0 | | | | | | | | |
| | 10 | | | | | | | | |
| | 20 | | | | | | | | |
| | 30 | | | | | | | | |
| | 50 | | | | | | | | |
| | 75 | | | | | | | | |
| | 100 | | | | | | | | |
| | 125 | | | | | | | | |
| | Botm | | | | | | | | |
| Depth(m) | | 164 | 132 | 120 | 104 | 82 | 80 | 50 | 58 |
| Water Trans. | | — | 9 | — | — | — | — | — | — |
| Water Color | | — | 4 | — | — | — | — | — | — |
| wave | | NNW4 | NNW4 | NNW4 | NNW4 | NNW4 | NNW4 | NNW3 | NNW4 |
| Swell | | NNW2 | NNW3 | NNW2 | NNW3 | NNW2 | NNW2 | NNW2 | NNW2 |
| Air Temp. (°C) | | 8.2 | 6.6 | 6.2 | 5.7 | 5.8 | 5.4 | 4.6 | 2.6 |
| Baro. (mb) | | 1022.2 | 1022.6 | 1021.2 | 1025.2 | 1025.4 | 1025.6 | 1026.3 | 1027.0 |
| Wind | | NNW15 | NNW14 | NNW12 | NNW12 | NNW11 | NNW11 | NNW10 | NNW15 |
| Cloud | | R | R | R | R | R | As10 | As10 | As10 |
| Weather | | R | R | R | R | R | C | C | C |

# 205선 해 양 관 측 성 적

## Oceanographic Data, Line 205

1월(January) 조사선

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 14 | 1750 | 62 | 4 | 6 | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 3 | 1041 | 1.0 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.40 | 34.20 | 6.39 | — | — | 8.00 | 8.10 |
| 10 | 11.44 | 34.16 | 6.19 | 0.57 | 0.30 | 14.54 | 8.11 |
| 20 | 10.53 | 34.16 | 6.31 | 0.52 | 0.33 | 22.54 | 8.12 |
| 30 | 10.22 | 34.00 | 6.23 | 0.50 | 0.32 | 16.72 | 8.09 |
| 50 | 9.94 | 34.06 | 6.21 | 0.56 | — | 15.27 | 8.15 |
| 60 | — | 33.99 | 6.21 | 0.39 | 0.33 | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 14 | 1827 | 54 | | | WSW 2 | WSW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1041 | 1.1 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO^4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 10.80 | 33.95 | 6.27 | 0.24 | 0.22 | 15.99 | 8.04 |
| 10 | 9.10 | 33.94 | 6.14 | 0.25 | 0.15 | 18.18 | 8.01 |
| 20 | 10.82 | 33.94 | 6.19 | 0.27 | 0.19 | 21.08 | 8.15 |
| 30 | 10.79 | 33.39 | 6.16 | 0.52 | 0.26 | 32.72 | — |
| 50 | — | 33.88 | 6.16 | 0.53 | 0.13 | 15.99 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 14 | 1945 | 79 | | | NW 3 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 3 | 1041.0 | 1.6 | | St | 5 | Ec |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.70 | 34.11 | 6.16 | 0.22 | 0.40 | 8.90 | 8.10 |
| 10 | 7.40 | 34.17 | 5.90 | 0.43 | 0.37 | 23.26 | 8.10 |
| 20 | 11.89 | 34.18 | 5.89 | 0.52 | 0.25 | 35.99 | 8.13 |
| 30 | 11.11 | 34.19 | 5.96 | 0.46 | 0.13 | 23.99 | 8.04 |
| 50 | 10.29 | 33.77 | 6.25 | 0.42 | 0.12 | 23.26 | 8.08 |
| 75 | — | 33.79 | 6.15 | 0.56 | 0.14 | 33.44 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 14 | 2135 | 91 | | | N 3 | N 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | 1041.0 | 2.4 | | St | 6 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.50 | 34.55 | 5.15 | 0.22 | 0.39 | 14.54 | 8.09 |
| 10 | 9.73 | — | 5.36 | 0.25 | 0.18 | 13.81 | 8.16 |
| 20 | 15.42 | — | 5.34 | — | — | — | 8.19 |
| 30 | 15.46 | 34.47 | 5.51 | 0.31 | 0.12 | 14.54 | 8.19 |
| 50 | 15.45 | 33.96 | 5.45 | 0.29 | 0.09 | 28.35 | 8.20 |
| 75 | 15.17 | 34.44 | 5.45 | 0.24 | 0.08 | 21.81 | 8.10 |
| 85 | — | 34.37 | 5.41 | 0.41 | 0.11 | 20.36 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 14 | 2330 | 117 | | | N 3 | N 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 4 | 1041.0 | 3.1 | | St | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.30 | 34.55 | 5.65 | 0.38 | 0.36 | 21.08 | 8.13 |
| 10 | 9.56 | 34.42 | 5.65 | 0.25 | 0.34 | 15.27 | 8.11 |
| 20 | 14.22 | 34.43 | 5.65 | 0.14 | 0.19 | 15.99 | 8.18 |
| 30 | 14.27 | 34.43 | 5.57 | 0.14 | 0.21 | 17.45 | 8.10 |
| 50 | 12.92 | 34.33 | 5.55 | 0.21 | 0.14 | 17.45 | 8.18 |
| 75 | 13.27 | 34.11 | 5.55 | 0.35 | 0.05 | 13.81 | 8.17 |
| 100 | 14.10 | 34.07 | 5.53 | 0.36 | 0.03 | 20.36 | 8.05 |
| 110 | — | 34.36 | 5.53 | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 15 | 0130 | 124 | | | NNE 3 | NNE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 5 | 1040.0 | 4.2 | | St | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.50 | 34.56 | 5.47 | 0.46 | 0.33 | 15.27 | 8.09 |
| 10 | 12.37 | 34.53 | 5.45 | 0.24 | 0.28 | 31.26 | 8.11 |
| 20 | 15.50 | — | 5.34 | 0.41 | — | 50.89 | 8.09 |
| 30 | 15.56 | 34.52 | 5.34 | 0.36 | 0.34 | 23.26 | 8.16 |
| 50 | 14.72 | 34.50 | 5.36 | 0.27 | 0.25 | 23.26 | 8.16 |
| 75 | 15.62 | 34.49 | 5.34 | 0.32 | — | 23.26 | 8.18 |
| 100 | 15.61 | 34.51 | 5.26 | — | — | — | 8.10 |
| 120 | — | 34.51 | 5.24 | 0.32 | 0.06 | 17.49 | — |

5월 (May) 척양호 (Chuk Yang Ho)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 5 | 1545 | 52 | 6 | 4 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 991.0 | 19.7 | | Cs | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-S μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.10 | 33.89 | 6.82 | 0.20 | 0.22 | 10.91 | 8.30 |
| 10 | 13.71 | 33.83 | 6.81 | 0.14 | 0.18 | 4.36 | 8.40 |
| 20 | 12.42 | 33.96 | 6.91 | 0.13 | 0.25 | 3.64 | 8.38 |
| 30 | 12.23 | 33.95 | 5.85 | 0.10 | 0.38 | 3.64 | 8.40 |
| 45 | 11.59 | 33.90 | 5.92 | 0.20 | 0.47 | 6.54 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 5 | 1710 | 57 | 5 | 7 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 0 | 989.0 | 19.5 | | Cs | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.00 | 33.71 | 6.81 | 0.16 | 0.18 | 11.63 | 8.30 |
| 10 | 14.28 | 33.72 | 6.94 | 0.20 | 0.20 | 0.73 | 8.25 |
| 20 | 12.20 | 33.81 | 7.14 | 0.22 | 0.23 | 1.45 | 8.40 |
| 30 | 12.22 | 33.96 | 6.71 | 0.36 | 0.17 | 2.18 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 5 | 2025 | 70 | 4 | 24 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 0 | 991.0 | 18.0 | | Cs | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$ N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.80 | 33.94 | 6.84 | 0.15 | 0.10 | 10.91 | 8.32 |
| 10 | 14.44 | 33.94 | 6.96 | 0.08 | 0.09 | 8.72 | 8.45 |
| 20 | 12.41 | 34.03 | 6.34 | 0.07 | 0.17 | 9.45 | 8.47 |
| 30 | 12.19 | 34.04 | 6.32 | 0.10 | 0.30 | 10.91 | 8.30 |
| 50 | 12.04 | — | 6.08 | 0.13 | 0.29 | 14.54 | 8.33 |
| 65 | 11.98 | 34.05 | 6.05 | 0.17 | 0.25 | 14.54 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 5 | 2006 | 92 | | | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 991.0 | 16.6 | | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.40 | 34.03 | 6.61 | 0.17 | 0.35 | 10.18 | 8.20 |
| 10 | 14.24 | 34.03 | 6.66 | 0.20 | 0.27 | 10.91 | 8.27 |
| 20 | 12.61 | 33.98 | 6.30 | 0.13 | 0.31 | 13.09 | 8.36 |
| 30 | 13.43 | 34.27 | 5.96 | 0.14 | 0.32 | 13.81 | 8.29 |
| 50 | 13.02 | 34.22 | 5.87 | 0.27 | 0.39 | 15.99 | 8.35 |
| 75 | 12.90 | 34.21 | 5.99 | 0.22 | 0.47 | 17.45 | 8.37 |
| 85 | 13.44 | 34.18 | 5.87 | 0.27 | 0.64 | 14.54 | 8.29 |

7월 (July) 지리산호 (Chi Ri San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 3 | 1155 | 55 | 5 | 6 | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | | 23.2 | 22.3 | Ci | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.56 | 34.28 | 5.95 | 0.22 | 0.02 | 11.63 | 8.00 |
| 10 | 20.48 | 34.16 | 5.91 | 0.20 | 0.04 | 13.81 | 8.05 |
| 20 | 19.52 | — | 5.67 | 0.17 | 0.09 | 16.72 | 8.11 |
| 30 | 13.13 | 33.61 | 5.34 | 0.36 | 0.04 | 18.18 | 8.00 |
| 50 | 12.96 | 33.50 | 5.46 | 0.43 | 0.13 | 18.90 | 7.94 |

| St No. | Date | Time | Depth | Water Color | Watar Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 3 | 1305 | 60 | 3 | 15 | SW 3 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | | 23.6 | 22.7 | Cc | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.97 | — | — | 0.10 | 0.02 | 17.45 | 7.98 |
| 10 | 20.05 | — | 5.85 | 0.21 | 0.02 | 12.36 | 8.13 |
| 20 | 19.67 | 34.69 | 5.73 | 0.28 | 0.04 | 13.81 | 8.26 |
| 30 | 13.82 | 34.39 | 5.46 | 0.46 | 0.14 | 16.72 | 8.13 |
| 55 | 13.50 | 34.39 | 5.41 | 0.48 | 0.18 | 25.45 | 7.94 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 3 | 1440 | 80 | 4 | 14 | SW 3 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 3 | | 24.7 | 24.0 | Cc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.07 | 33.65 | 6.06 | 0.28 | 0.02 | 21.08 | 7.96 |
| 10 | 19.46 | 33.61 | 5.83 | 0.17 | 0.04 | 18.90 | 8.00 |
| 20 | 16.67 | 33.88 | 6.38 | 0.21 | 0.02 | 17.45 | 8.01 |
| 30 | 14.58 | 34.19 | 6.05 | 0.28 | 0.12 | 17.45 | 8.12 |
| 50 | 13.57 | 34.44 | 5.84 | 0.27 | 0.07 | 20.36 | 8.15 |
| 75 | 14.61 | 34.89 | — | 0.56 | 0.18 | 27.63 | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 3 | 1615 | 88 | 3 | 17 | SW 4 | 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 4 | | 24.1 | 22.8 | Cc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.00 | 34.16 | 5.97 | 0.14 | 0.08 | 14.54 | 8.12 |
| 10 | 21.61 | — | 5.62 | 0.14 | 0.08 | 13.81 | 8.20 |
| 20 | 19.67 | 34.46 | 6.17 | 0.07 | 0.02 | 24.72 | 8.20 |
| 30 | 17.36 | 34.23 | 6.06 | 0.21 | 0.03 | 16.72 | 8.27 |
| 50 | 14.23 | 34.44 | 5.87 | 0.29 | 0.25 | 23.99 | 8.14 |
| 75 | 14.63 | 34.92 | 4.70 | 0.55 | 0.10 | 29.08 | 7.72 |
| 85 | 14.61 | 34.94 | 4.62 | 0.56 | 0.10 | 25.45 | 7.82 |

10월 (October) 백두산 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 21 | 0300 | | | | NW 3 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1017.1 | 16.7 | | Ac | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.77 | 33.17 | 5.38 | 0.17 | — | 12.36 | 8.36 |
| 10 | 20.21 | 33.19 | 5.55 | 0.21 | — | 13.09 | 8.35 |
| 20 | 20.79 | 33.21 | 5.59 | 0.17 | — | 5.09 | 8.27 |
| 30 | 20.40 | 33.21 | 5.36 | 0.07 | — | 9.27 | 8.33 |
| 50 | 15.20 | 34.04 | 4.12 | 0.73 | — | 26.89 | 8.13 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 21 | 0200 | 62 | | | NW 3 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1017.5 | 17.0 | | Ac | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.55 | 33.17 | 5.44 | 0.08 | 0 | 11.63 | 8.18 |
| 10 | 20.59 | 33.16 | 5.65 | 0.14 | 0 | 5.09 | 8.45 |
| 20 | 20.46 | 33.16 | 5.36 | 0.04 | 0 | 8.00 | 8.43 |
| 30 | 20.22 | 33.19 | 5.38 | 0.07 | 0 | 8.72 | 8.17 |
| 50 | 15.08 | 34.13 | 4.04 | 0.62 | — | 14.54 | 7.70 |
| 60 | 15.07 | 34.25 | 4.02 | 0.70 | — | 24.72 | 7.85 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 20 | 2300 | 92 | | | NW 3 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1018.2 | 18.2 | | Ac | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.80 | 33.15 | 4.43 | 0.07 | 0 | 6.54 | 7.93 |
| 10 | 20.09 | 33.09 | 5.88 | 0.11 | 0 | 10.91 | 8.06 |
| 20 | 20.12 | 33.10 | 5.77 | 0.17 | 0 | 4.36 | 8.15 |
| 30 | 20.02 | 33.18 | 5.98 | 0.15 | 0 | 11.63 | 8.34 |
| 50 | 16.06 | 33.54 | 5.34 | 0.28 | 0 | 26.89 | 7.70 |
| 75 | 15.62 | 34.38 | 4.74 | 0.38 | 0 | 21.81 | 7.72 |
| 85 | 15.64 | 34.40 | 3.94 | 0.56 | 0 | 18.18 | 7.68 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 20 | 2150 | 102 | | | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1018.6 | 18.8 | | Ac | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.00 | 32.97 | 4.02 | 0.21 | 0 | 17.45 | — |
| 10 | 19.96 | 32.92 | 5.48 | 0.03 | 0 | 15.99 | 7.42 |
| 20 | 20.03 | 33.05 | 3.94 | 0.07 | 0 | 12.36 | 7.97 |
| 30 | 20.15 | 33.17 | 5.57 | 0.14 | 0 | 9.45 | 8.17 |
| 50 | 20.16 | 33.43 | 5.67 | 0.06 | 0 | 12.36 | 8.32 |
| 75 | 17.69 | 33.65 | 5.77 | 0.14 | 0 | 22.54 | 8.03 |
| 95 | 15.66 | 34.38 | 5.65 | 0.61 | 0 | 21.81 | 7.88 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 20 | 1940 | 114 | | | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1018.8 | 19.8 | | Ac | 2 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.50 | 34.58 | 5.67 | 0.07 | 0 | 3.64 | 8.25 |
| 10 | 23.46 | 34.53 | 5.26 | 0.08 | 0 | — | 8.28 |
| 20 | 23.46 | 34.55 | 5.26 | 0.06 | 0 | 7.27 | 8.35 |
| 30 | 23.43 | 34.55 | 5.05 | 0.06 | 0 | 7.27 | 8.33 |
| 50 | 23.47 | 34.56 | 6.39 | 0 | 0 | 14.54 | 8.35 |
| 75 | 19.49 | 34.53 | 5.36 | 0.42 | 0 | 41.44 | 7.88 |
| 100 | 16.90 | 34.26 | 3.71 | 0.63 | 0.04 | 26.17 | 7.97 |
| 110 | 15.72 | 34.59 | 4.12 | 0.77 | 0 | 39.26 | 7.68 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 20 | 1743 | 128 | | | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1018.8 | 20.2 | | Ac | 3 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.60 | 34.46 | 5.31 | 0.10 | 0.01 | 13.09 | 8.13 |
| 10 | 23.32 | 34.38 | 5.36 | 0.03 | 0 | 0 | 8.55 |
| 20 | 23.18 | 34.37 | 5.18 | 0.03 | 0 | 0 | 8.38 |
| 30 | 23.21 | 34.38 | 4.74 | 0.07 | 0 | 11.63 | 8.45 |
| 50 | 23.23 | 34.39 | 5.24 | 0.08 | 0 | 8.72 | 8.40 |
| 75 | 22.46 | 34.37 | 6.09 | 0.24 | 0 | 26.29 | 8.33 |
| 100 | 18.75 | 34.48 | 3.30 | 0.70 | 0 | 31.26 | 8.03 |
| 125 | 16.01 | 34.57 | 3.45 | 0.71 | 0.04 | 5.09 | 7.92 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 20 | 1600 | 148 | 4 | 15 | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1019.0 | 22.9 | | Cu | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.70 | 34.46 | 5.55 | 0.31 | 0 | 25.45 | 7.90 |
| 10 | 23.38 | 34.41 | 5.98 | 0.10 | 0 | 15.27 | 8.20 |
| 20 | 23.20 | 34.40 | 4.97 | 0.03 | 0 | 16.72 | 8.12 |
| 30 | 23.20 | 34.40 | 5.26 | 0.07 | 0 | 14.54 | 8.25 |
| 50 | 23.30 | 34.39 | 5.16 | 0.04 | 0 | 17.45 | 8.25 |
| 75 | 21.61 | 34.64 | 4.48 | 0.21 | 0 | 29.81 | 8.03 |
| 100 | 19.71 | 34.72 | 5.02 | 0.08 | 0 | 31.99 | — |
| 125 | 16.32 | 34.52 | 4.23 | 0.62 | 0.01 | 35.35 | 7.93 |
| 145 | 15.83 | 34.57 | 4.02 | 0.63 | 0 | 13.81 | 7.90 |

# 206선 해 양 관 측 성 적

## Oceanographic Data, Line 206

1월 (January) 북한산 (Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 17 | 0930 | 70 | 5 | 7 | SW 2 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WSW | 3 | 1034.0 | 1.0 | | Ac | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.20 | 34.34 | 5.86 | 0.17 | 0.38 | 13.81 | 7.89 |
| 10 | 9.31 | 34.32 | 5.79 | 0.38 | 0.28 | 15.99 | 8.25 |
| 20 | 12.03 | 34.32 | 5.77 | 0.21 | 0.28 | 19.63 | 8.06 |
| 30 | 12.12 | 34.32 | 5.79 | 0.24 | 0.19 | 16.72 | 8.15 |
| 50 | 12.20 | 34.33 | 5.75 | 0.45 | 0.07 | 16.72 | 8.16 |
| 65 | 12.06 | 34.31 | 5.75 | 0.34 | 0.14 | 21.08 | 8.14 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 18 | 1110 | 70 | 6 | 5 | W 2 | W 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1036.0 | 4.1 | | Ci | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.20 | 34.42 | 5.77 | 0.24 | 0.34 | 18.90 | 7.82 |
| 10 | 11.34 | 34.48 | — | 0.39 | 0.30 | 18.18 | 7.89 |
| 20 | 13.04 | 34.40 | 5.78 | 0.29 | 0.38 | 13.09 | 7.80 |
| 30 | 13.17 | 34.39 | 5.90 | 0.28 | 0.34 | 17.45 | 8.07 |
| 50 | 13.20 | 34.39 | 5.90 | 0.29 | 0.30 | 13.81 | 8.10 |
| 65 | 13.17 | 34.39 | 5.90 | 0.41 | 0.27 | 16.72 | 8.15 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 18 | 1245 | 97. | 4 | 12 | WNW 2 | WNW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1034. 0 | 5. 8 | | Ci | 8 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13. 40 | 34. 29 | 5. 88 | 0. 96 | 0. 37 | 15. 27 | 7. 92 |
| 10 | 11. 52 | 34. 26 | 5. 82 | 0. 31 | 0. 33 | 10. 91 | 7. 93 |
| 20 | 13. 02 | 34. 27 | 5. 75 | 0. 69 | 0. 42 | 23. 26 | 8. 10 |
| 30 | 13. 08 | 34. 27 | 5. 75 | 0. 38 | 0. 39 | 12. 36 | 8. 12 |
| 50 | 13. 06 | 34. 27 | 5. 86 | 0. 35 | 0. 17 | 26. 90 | 8. 16 |
| 75 | 12. 72 | 34. 23 | 5. 90 | 0. 39 | 0. 11 | 14. 54 | 8. 05 |
| 90 | 11. 45 | 34. 01 | 5. 94 | 0. 41 | 0. 08 | 10. 91 | 8. 14 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 18 | 1355 | 126 | 3 | 4 | SW 3 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1033. 0 | 7. 9 | | Ci | 4 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15. 20 | 34. 51 | 6. 14 | 0. 17 | 0. 30 | 11. 63 | 8. 12 |
| 10 | 14. 98 | 34. 53 | 6. 06 | 0. 43 | 0. 35 | 8. 00 | 8. 14 |
| 20 | 15. 10 | 34. 52 | 6. 06 | 0. 32 | 0. 42 | 8. 72 | 8. 17 |
| 30 | 14. 09 | 34. 42 | 6. 08 | 0. 59 | 0. 42 | 7. 27 | 8. 12 |
| 50 | 13. 65 | 34. 31 | 5. 96 | 0. 66 | 0. 36 | 7. 27 | 7. 98 |
| 75 | 12. 70 | 34. 21 | 5. 96 | 0. 66 | 0. 27 | 7. 27 | 8. 15 |
| 100 | 12. 05 | 34. 19 | 5. 90 | 0. 57 | 0. 14 | 5. 80 | 8. 09 |
| 120 | 11. 48 | 34. 12 | 5. 86 | 0. 65 | 0. 25 | 5. 80 | 7. 93 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 18 | 1610 | 138 | | | WSW 3 | WSW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| WNW | 3 | 1034.0 | 8.0 | | Ci | 3 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.10 | 34.43 | 5.73 | 0.21 | 0.40 | 8.00 | 8.03 |
| 10 | 12.82 | 34.38 | 6.06 | 0.36 | 0.34 | 13.09 | 8.19 |
| 20 | 13.47 | 34.36 | 6.06 | 0.24 | 0.34 | 3.64 | 8.10 |
| 30 | 13.36 | 34.35 | 6.16 | 0.21 | 0.35 | 10.18 | 8.13 |
| 50 | 12.95 | 34.27 | 6.12 | 0.48 | 0.37 | 6.54 | 8.12 |
| 75 | 12.83 | 34.24 | 6.14 | 0.55 | 0.37 | 5.09 | 8.20 |
| 100 | 12.81 | 34.22 | 5.86 | 0.56 | 0.56 | 4.36 | 8.13 |
| 125 | 12.49 | 34.18 | 5.97 | 0.48 | 0.34 | 8.72 | 8.20 |
| 135 | 11.57 | — | — | — | — | — | — |

7월 (July) 지리산 ( Chi Ri San )

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Smell |
|---|---|---|---|---|---|---|---|
| 01 | 1 | 0850 | 56 | 5 | | ENE 4 | ENE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | | 22.9 | 22.2 | NS | 10 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.48 | 33.73 | 6.02 | 0.27 | 0.02 | 12.36 | 7.90 |
| 10 | 19.14 | 33.86 | 5.77 | 0.25 | — | 14.54 | 7.97 |
| 20 | 17.55 | 34.07 | 5.75 | 0.34 | — | 13.81 | 7.79 |
| 30 | 17.12 | 34.19 | 5.76 | 0.28 | — | 14.54 | 7.93 |
| 50 | 12.51 | 34.23 | 5.54 | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 1 | 0740 | 65 | 3 | 17 | ENE 3 | ENE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | | 21.4 | 20.9 | Ns | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg/at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.24 | 33.71 | 5.76 | 0.20 | 0.04 | 10.18 | 7.98 |
| 10 | 20.26 | 33.85 | 5.64 | 0.21 | 0.02 | 13.81 | 8.91 |
| 20 | 19.42 | 34.08 | 5.96 | 0.14 | 0.03 | 24.72 | 7.99 |
| 30 | 20.10 | 34.21 | 5.98 | — | — | — | 8.03 |
| 50 | 15.74 | 34.35 | 5.94 | 0.29 | 0.05 | 36.35 | 7.94 |
| 60 | 15.16 | — | — | 0.27 | — | 12.36 | 7.78 |

| St No. | Cate | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 1 | 0610 | 91 | 3 | 25 | ENE 2 | ENE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | | 20.8 | 20.6 | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.34 | 33.51 | 6.16 | 0.24 | 0.01 | 11.63 | 7.96 |
| 10 | 21.34 | 33.49 | 5.54 | — | — | — | 8.04 |
| 20 | 20.92 | 34.83 | 5.86 | 0.29 | 0.02 | 13.09 | 8.01 |
| 30 | 17.93 | 34.47 | 6.38 | 0.31 | 0.02 | 12.36 | 8.00 |
| 50 | 14.34 | 34.82 | 5.02 | — | — | — | 8.01 |
| 75 | 14.54 | 34.89 | 4.60 | 0.42 | 0.12 | 21.81 | 8.00 |
| 85 | 14.43 | 34.[illegible] | 4.64 | 0.39 | 0.06 | 26.17 | 7.98 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 1 | 0440 | 144 | | | ENE 2 | ENE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | | 20.1 | 19.9 | Ns | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.39 | 33.63 | 5.59 | 0.14 | 0.01 | 10.13 | 7.77 |
| 10 | 21.19 | 33.71 | 5.75 | 0.24 | 0.03 | 8.00 | 7.92 |
| 20 | 20.48 | 33.72 | 5.68 | 0.11 | 0.02 | 8.72 | 8.08 |
| 30 | 18.86 | 33.81 | 6.02 | 0.21 | 0.02 | 11.63 | 8.04 |
| 50 | 13.88 | 34.03 | 6.48 | — | — | — | 7.96 |
| 75 | 13.21 | 34.50 | 5.49 | — | — | — | 7.88 |
| 100 | 13.53 | 34.60 | 5.24 | — | — | — | 7.86 |
| 125 | 13.82 | 34.71 | 5.23 | — | — | — | 7.85 |
| 140 | 13.86 | 34.70 | — | — | — | — | 7.80 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 1 | 0220 | 123 | | | ENE 2 | ENE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amnunt | |
| NE | 2 | | 23.3 | 21.7 | Ns | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.87 | 34.41 | 5.54 | 0.13 | 0.02 | 2.91 | 8.05 |
| 10 | 23.59 | 34.55 | 5.59 | 0.12 | 0.02 | 7.27 | 8.00 |
| 20 | 23.60 | 34.46 | 5.66 | 0.10 | 0.07 | 8.72 | 8.15 |
| 30 | 22.64 | — | 5.75 | 0.14 | 0.02 | 10.91 | 8.20 |
| 50 | 18.02 | — | 5.64 | 0.25 | 0.02 | 15.27 | 8.19 |
| 75 | 15.87 | — | 4.62 | 0.34 | — | 17.45 | 7.95 |
| 100 | 15.22 | 34.85 | 4.65 | 0.70 | 0.09 | 19.63 | 7.96 |
| 125 | — | 34.94 | — | — | 0.04 | 16.72 | 7.75 |

10월 (October) 백두산 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 22 | 1130 | 62 | 5 | 8 | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amonnt | |
| SE | 2 | 1013.5 | 18.4 | | Ac | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.80 | 33.52 | 5.57 | 0.21 | — | 16.72 | 8.18 |
| 10 | 19.91 | 33.47 | 5.05 | 0.28 | — | 8.72 | 8.35 |
| 20 | 19.83 | 33.48 | 5.34 | 0.25 | — | 15.27 | 7.94 |
| 30 | 19.76 | 33.54 | 5.65 | 0.10 | — | 15.27 | 8.17 |
| 50 | 17.88 | 33.48 | 4.41 | 0.48 | — | 29.08 | 7.95 |
| 60 | 16.18 | 34.02 | 4.41 | 0.52 | — | 23.26 | 8.06 |

| St No. | Date | Time | Deph | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 22 | 1235 | 72 | 4 | 21 | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1012.9 | 18.8 | | Ci | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.50 | 33.99 | 5.36 | 0.18 | — | 5.82 | 8.48 |
| 10 | 21.10 | 33.67 | 5.46 | 0.06 | — | 10.91 | 8.42 |
| 20 | 21.19 | 33.73 | 5.36 | 0.04 | — | 8.00 | 8.28 |
| 30 | 21.18 | 33.78 | 6.93 | 0.17 | — | 10.18 | 8.33 |
| 50 | 16.93 | 33.90 | 4.41 | 0.32 | — | 23.99 | 8.23 |
| 65 | 16.30 | 34.35 | 3.83 | 0.42 | — | 29.81 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 22 | 1345 | 100 | 4 | 17 | SE 3 | SE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1012 5 | 19. 6 | | Ci | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.70 | 33.40 | 5.38 | 0.25 | — | 12.36 | 8.12 |
| 10 | 20.42 | 33.31 | 5.36 | 0.13 | — | 7.27 | 8.05 |
| 20 | 20.31 | 33.30 | 5.36 | 0.21 | — | 10.91 | 8.15 |
| 30 | 20.33 | 33.31 | 5.63 | 0.17 | — | 8.72 | 8.27 |
| 50 | 17.60 | 33.48 | 5.09 | 0.27 | — | 14.54 | 8.20 |
| 75 | 15.66 | 34.33 | 4.92 | 0.48 | — | 34.17 | 7.96 |
| 95 | 15.27 | 34.36 | 3.94 | 0.43 | — | 34.17 | 7.72 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 22 | 1500 | 124 | 4 | 22 | S 3 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | 1012.1 | 20.4 | | Ci | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.85 | 33.76 | 5.63 | 0.14 | — | 9.45 | 7.83 |
| 10 | 20.85 | 33.74 | 5.28 | 0.17 | — | 18.90 | 8.30 |
| 20 | 21.12 | 33.86 | 5.48 | 0.38 | — | 7.27 | 8.25 |
| 30 | 21.11 | 33.87 | 6.34 | 0.24 | — | 5.82 | 8.35 |
| 50 | 21.48 | 34.02 | 5.46 | 0.03 | — | 18.18 | 8.30 |
| 75 | 16.05 | 33.71 | 4.64 | 0.13 | — | 22.54 | 7.98 |
| 100 | 15.00 | 34.18 | 4.25 | 0.43 | — | 47.26 | 7.90 |
| 120 | 14.95 | 34.26 | 4.02 | 0.50 | — | 31.26 | 7.85 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 22 | 1610 | 128 | 4 | 17 | S 3 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | 1012.5 | 18.7 | | Ac | 8 | Bc |

OBSERVED

| Z<br>*m* | T<br>℃ | S<br>‰ | $O_2$<br>% | $PO_4$-P<br>μg-at/L | $NO_2$-N<br>μg-at/L | $SiO_2$-Si<br>μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.20 | 33.74 | 5.36 | 0.42 | — | 15.99 | 8.13 |
| 10 | 21.28 | 33.86 | 5.26 | 0.11 | — | 10.91 | 8.27 |
| 20 | 21.30 | 34.27 | 7.53 | 0.10 | — | 12.36 | 8.42 |
| 30 | 22.29 | 34.29 | 5.26 | 0.07 | — | 12.36 | 8.38 |
| 50 | 22.23 | 34.29 | 5.08 | 0.14 | — | 8.72 | 8.42 |
| 75 | 16.48 | 33.94 | 4.54 | 0.22 | — | 29.81 | 8.04 |
| 100 | 15.86 | 34.45 | 3.91 | 0.35 | — | 28.35 | 7.98 |
| 125 | 15.83 | 34.51 | 4.12 | 0.46 | — | 21.08 | 7.88 |

# 206선 해 양 관 측 성 적

Oceanographic Data, Line 206

| Month | | 12월(백두산) | | 68 년 1 월 (백두산) | | |
|---|---|---|---|---|---|---|
| St No. | | 01 | 02 | 03 | 04 | 05 |
| Day | | 28 | 28 | 11 | 11 | 11 |
| Item | Time / Z(m) | 1150 | 1325 | 1230 | 1335 | 1450 |
| T ℃ | 0 | 11.02 | 13.14 | 16.11 | 14.57 | 16.66 |
| | 10 | 11.18 | 13.14 | 16.11 | 13.58 | 16.68 |
| | 20 | 11.10 | 13.12 | 16.04 | 13.24 | 16.58 |
| | 30 | 11.15 | 13.19 | 15.51 | 13.21 | 16.39 |
| | 50 | 11.15 | 13.16 | 13.43 | 13.05 | 15.87 |
| | 75 | — | — | 10.98 | 12.73 | 15.62 |
| | 100 | — | — | — | 12.26 | 15.06 |
| | Botm | 11.19 | 13.15 | 10.52 | 11.32 | 14.71 |
| S ‰ | 0 | | | | | |
| | 10 | | | | | |
| | 20 | | | | | |
| | 30 | | | | | |
| | 50 | | | | | |
| | 75 | | | | | |
| | 100 | | | | | |
| | Botm | | | | | |
| Depth(m) | | 62 | 64 | 93 | 112 | 125 |
| Water Trans(m) | | — | 20 | 17 | 13 | 24 |
| Water Color | | — | 4 | 3 | 7 | 4 |
| Wave | | W4 | NW4 | SW1 | NW1 | NW1 |
| Swell | | W2 | NW3 | SW1 | NW1 | NW1 |
| Air Temp(°C) | | 0.1 | 0.1 | 8.4 | 9.0 | — |
| Baro. (mb) | | 1017.6 | 1017.0 | 1026.9 | 1026.1 | 1025.6 |
| Wind | | W17 | NW17 | SW7 | NW6 | NW6 |
| Cloud | | As10 | Ac8 | As3 | As3 | As4 |
| Weather | | C | C | BC | BC | BC |

# 207선 해 양 관 측 성 적

## Oceanographic Data, Line 207

1월 (January) 북한산 ( Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 20 | 0900 | 82 | 4 | 9 | WNW 1 | WNW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1033.0 | 11.2 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.50 | 34.38 | 5.86 | 0.52 | — | 29.81 | 8.10 |
| 10 | 12.07 | 34.35 | 5.86 | 0.46 | — | 32.72 | 8.05 |
| 20 | 12.47 | 34.36 | 5.86 | 0.08 | 0.20 | 34.17 | 8.13 |
| 30 | 12.21 | 34.34 | 5.84 | 0.10 | 0.30 | 34.80 | 8.19 |
| 50 | 11.92 | 34.36 | 5.86 | 0.39 | 0.27 | 32.72 | 8.20 |
| 75 | 11.39 | 34.34 | 5.96 | 0.15 | 0.25 | 34.80 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 20 | 0955 | 99 | 5 | 10 | NNW 2 | NNW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1033.0 | 9.8 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.60 | 34.49 | 5.94 | 0.27 | 0.38 | 20.36 | 8.11 |
| 10 | 13.90 | 34.47 | 5.96 | 0.14 | 0.41 | 21.81 | 8.14 |
| 20 | 14.42 | 34.47 | 5.86 | 0.10 | 0.12 | 26.90 | 8.20 |
| 30 | 14.37 | 34.46 | 5.75 | 0.08 | 0.09 | 26.90 | 8.18 |
| 50 | 13.34 | 34.31 | 5.75 | 0.06 | 0.09 | 31.99 | 8.18 |
| 75 | 12.76 | 34.41 | 5.67 | 0.04 | 0.06 | 31.26 | 8.19 |
| 95 | 12.60 | 34.23 | 5.75 | 0.01 | 0.07 | 32.72 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 20 | 1050 | 140 | 4 | 12 | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1033.0 | 10.4 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.10 | 34.52 | 5.91 | 0.03 | 0.33 | 31.26 | 8.19 |
| 10 | 13.33 | 34.48 | 5.75 | 0.22 | 0.26 | 27.63 | 8.19 |
| 20 | 14.78 | 34.49 | 5.67 | 0 | 0.16 | 32.72 | 8.22 |
| 30 | 14.87 | 34.50 | 6.01 | 0 | 0.15 | 23.26 | — |
| 50 | 14.65 | 34.49 | 5.71 | 0.29 | 0.25 | 20.36 | 8.22 |
| 75 | 14.44 | 34.45 | 5.96 | 0.27 | 0.11 | 24.72 | 8.21 |
| 100 | 13.85 | 34.37 | 5.91 | 0.32 | 0.10 | 23.99 | 8.20 |
| 125 | 13.23 | 34.30 | 5.60 | 6.01 | 0.14 | 26.90 | 8.21 |
| 135 | — | — | 5.55 | 0.21 | 0.07 | 34.44 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 20 | 1140 | 231 | 3 | 18 | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1033.0 | 9.1 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.80 | 34.51 | 5.69 | 0.34 | 0.36 | 25.45 | 8.23 |
| 10 | 13.28 | 34.48 | 5.69 | 0.04 | 0.31 | 25.45 | 8.23 |
| 20 | 14.30 | 34.49 | 5.63 | 0.29 | 0.17 | 22.54 | 8.23 |
| 30 | 14.78 | 34.48 | 5.75 | 0.06 | 0.12 | 26.17 | 8.22 |
| 50 | 14.78 | 34.48 | 5.55 | 0.29 | 0.17 | 23.99 | 8.20 |
| 75 | 14.72 | 34.49 | 5.55 | 0.31 | 0.24 | 23.99 | 8.20 |
| 100 | 14.82 | 34.49 | 5.55 | 0.29 | 0.26 | 27.63 | 8.20 |
| 125 | 14.48 | 34.47 | 5.90 | 0.08 | 0.22 | 30.53 | 8.27 |
| 150 | 13.58 | 34.10 | 6.04 | 0.07 | 0.13 | 43.62 | 8.23 |
| 200 | 8.65 | 34.15 | 5.14 | 0.48 | 0.06 | 51.62 | 8.19 |
| 225 | 8.09 | 34.13 | 4.85 | 0.30 | 0.10 | 52.34 | 8.05 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 20 | 1235 | 145 | 4 | 15 | WNW 2 | WNW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1032.0 | 11.2 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.90 | 34.48 | 5.55 | 0.27 | 0.30 | 21.81 | 8.08 |
| 10 | 14.06 | 34.46 | 5.59 | 0.27 | 0.31 | 23.99 | 8.18 |
| 20 | 14.63 | 34.47 | 5.55 | 0.28 | 0.17 | 23.99 | 8.20 |
| 30 | 14.63 | 34.46 | 5.57 | 0.24 | 0.08 | 26.17 | 8.22 |
| 50 | 14.33 | 34.46 | 5.49 | 0.24 | 0.04 | 19.63 | 8.22 |
| 75 | 14.56 | — | 5.65 | 0.21 | 0.06 | 15.99 | 8.11 |
| 100 | 13.12 | — | 5.86 | 0.04 | 0.09 | 22.54 | 8.21 |
| 125 | 12.46 | — | 5.98 | 0.27 | 0.09 | 21.09 | 8.20 |
| 140 | 12.41 | — | 6.00 | 0.53 | 0.07 | 21.81 | 8.20 |

5월 (May) 척양호 (Chuck Yang Ho)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 4 | 0650 | 85 | 5 | 7 | NW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1000.0 | 17.7 | 16.2 | Sc | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.90 | — | 6.50 | 0.22 | 0.14 | 1.45 | 8.14 |
| 10 | 14.81 | 34.00 | 6.44 | 0.18 | 0.18 | 2.18 | 8.37 |
| 20 | 13.45 | 34.20 | 6.28 | 0.29 | 0.26 | 6.54 | 8.40 |
| 30 | 13.12 | 34.28 | 6.05 | 0.18 | 0.22 | 8.00 | 8.36 |
| 50 | 12.82 | 34.42 | 5.65 | 0.21 | 0.23 | 8.72 | 8.30 |
| 80 | 12.59 | 34.43 | 5.39 | 0.27 | 0.26 | 8.54 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 4 | 0850 | 100 | 4 | 14 | NW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1000.0 | 17.5 | 16.5 | Sc | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.80 | 34.06 | 6.28 | 0.17 | 0.22 | 5.09 | 8.29 |
| 10 | 14.39 | 34.04 | 6.28 | 0.20 | 0.21 | 2.91 | 8.34 |
| 20 | 14.36 | 34.04 | 6.14 | 0.21 | 0.23 | — | 8.37 |
| 30 | 13.21 | 34.12 | 6.09 | 0.24 | 0.22 | 2.91 | 8.35 |
| 50 | 12.45 | 34.26 | 5.96 | 0.31 | 0.22 | 3.64 | 8.32 |
| 75 | 12.43 | 34.25 | 5.96 | 0.31 | 0.21 | 4.36 | 8.32 |
| 95 | 12.39 | 34.25 | 5.75 | 0.34 | 0.19 | 5.09 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 4 | 0900 | 116 | 6 | 10 | SW 1 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1000.0 | 18.0 | 16·5 | Sc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_2$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.40 | 34.43 | 6.35 | 0.21 | 0.21 | 2.91 | 8.30 |
| 10 | 15.15 | 34.37 | 6.30 | 0.27 | 0.26 | 4.36 | 8.30 |
| 20 | 14.84 | 34.60 | 6.22 | 0.38 | 0.29 | 6.54 | 8.33 |
| 30 | 14.13 | 34.50 | 6.07 | 0.39 | 0.38 | 6.54 | 8.30 |
| 50 | 12.91 | 34.29 | 5.76 | 0.43 | 0.41 | 15.27 | 8.30 |
| 75 | 12.50 | 34.26 | — | 0.35 | 0.50 | 15.99 | 8.32 |
| 100 | 12.37 | 34.31 | — | 0.43 | 0.42 | 10.91 | 8.31 |
| 110 | 12.43 | 34.35 | — | 0.48 | 0.24 | 15.99 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 4 | 1030 | 220 | 4 | 10 | SW 1 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1000.0 | 16.4 | 15.8 | Sc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.20 | 34.42 | — | 0.08 | 0.13 | 13.81 | 8.35 |
| 10 | 15.83 | 34.44 | 6.12 | 0.13 | — | 8.72 | 8.39 |
| 20 | 15.69 | 34.46 | 6.09 | 0.14 | 0.16 | 14.54 | 8.38 |
| 30 | 15.18 | 34.46 | 6.18 | 0.14 | 0.17 | 14.54 | 8.40 |
| 50 | 14.20 | 34.48 | 6.03 | 0.13 | 0.14 | 15.99 | 8.35 |
| 75 | 13.50 | 34.39 | 5.96 | 0.13 | 0.15 | 14.54 | 8.30 |
| 100 | 13.28 | 34.35 | 5.85 | 0.14 | 0.16 | 14.54 | 8.33 |
| 125 | 13.81 | 34.36 | 5.77 | 0.20 | 0.17 | 15.27 | 8.31 |
| 150 | 12.88 | 34.30 | 5.83 | 0.21 | 0.24 | 15.99 | 8.34 |
| 200 | 12.74 | 34.31 | 5.90 | 0.29 | 0.25 | 18.18 | 8.40 |
| 215 | 10.97 | 34.33 | 5.64 | 0.57 | 0.15 | 18.90 | 8.39 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 4 | 1155 | 160 | 4 | 10 | S 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1000.5 | 16.4 | 15.2 | Sc As | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.20 | 34.62 | 5.90 | 0.10 | 0.26 | 0.73 | 8.33 |
| 10 | 16.28 | 34.61 | 5.76 | 0.13 | 0.18 | 2.18 | 8.38 |
| 20 | 16.01 | 34.63 | 5.74 | 0.10 | 0.20 | 2.91 | 8.37 |
| 30 | 15.87 | 34.59 | 5.74 | 0.11 | 0.26 | 4.36 | 8.40 |
| 50 | 14.49 | 34.55 | 5.31 | 0.07 | 0.26 | 7.27 | 8.40 |
| 75 | 14.23 | 34.52 | 5.27 | 0.14 | 0.21 | 7.27 | 8.40 |
| 100 | 14.12 | 34.48 | 5.34 | 0.18 | 0.16 | 9.45 | 8.40 |
| 125 | 14.02 | 34.46 | 5.44 | 0.13 | 0.18 | 13.09 | 8.40 |
| 155 | 13.73 | 34.4 | [illegible] | [illegible] | [illegible] | 4.3[illegible] | [illegible] |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 4 | 1310 | 52 | 4 | 9 | SW 3 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | | 16.6 | 15.2 | Sc-As | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.40 | 34.67 | 5.66 | 0.18 | 0.22 | 0 | 8.35 |
| 10 | 16.21 | 34.60 | 5.64 | 0.20 | 0.02 | 0 | 8.40 |
| 20 | 16.18 | 34.61 | 5.71 | 0.14 | 0.22 | 1.45 | 8.40 |
| 30 | 15.10 | 34.60 | 5.42 | 0.15 | 0.23 | 4.36 | 8.33 |
| 45 | 15.06 | 34.60 | 5.38 | 0.43 | 0.24 | 2.18 | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 4 | 1500 | 98 | 4 | 10 | SW 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1000.4 | 21.2 | 19.6 | Sc-As | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.90 | 34.63 | 6.34 | 0.18 | 0.22 | 0 | 8.40 |
| 10 | 16.74 | 34.62 | 6.09 | 0.10 | 0.22 | 0 | 8.38 |
| 20 | 16.49 | 34.62 | 6.07 | 0.14 | 0.23 | 0 | 8.41 |
| 30 | 16.23 | 34.62 | 5.90 | 0.15 | 0.42 | 0 | 8.45 |
| 50 | 16.07 | 34.61 | 5.63 | 0.18 | 0.22 | 1.45 | 8.36 |
| 75 | 15.67 | 34.61 | 5.55 | 0.20 | 0.13 | 2.18 | 8.33 |
| 95 | 14.69 | 34.60 | 5.31 | 0.21 | 0.13 | 3.64 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 4 | 1620 | 110 | 4 | 10 | SW 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1000.7 | 18.7 | 17.2 | Sc-As | 8 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.90 | 34.68 | 6.30 | 0.17 | 0.17 | 5.09 | 8.36 |
| 10 | 16.51 | 34.65 | 6.54 | 0.14 | 0.16 | 3.64 | 8.43 |
| 20 | 16.39 | 34.65 | 6.53 | 0.15 | 0.15 | 3.64 | — |
| 30 | 16.57 | 34.67 | 5.44 | 0.20 | 0.11 | 8.00 | 8.40 |
| 50 | 15.30 | 34.69 | 6.29 | 0.28 | 0.09 | 8.72 | 8.40 |
| 75 | 15.29 | 34.71 | 5.18 | 0.34 | 0.14 | 12.36 | 8.40 |
| 105 | 15.70 | 33.53 | 5.14 | 0.32 | 0.14 | 3.64 | 8.34 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 4 | 1740 | 118 | 5 | 13 | SW 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1000.14 | 18.3 | 17.5 | Sc-As | 8 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.90 | 34.56 | 6.29 | 0.24 | 0.12 | 0 | 8.30 |
| 10 | 17.01 | 34.61 | 5.86 | 0.21 | 0.12 | 1.45 | 8.40 |
| 20 | 16.52 | 34.60 | 5.96 | 0.20 | 0.14 | 4.36 | — |
| 30 | 16.19 | 34.67 | 5.66 | 0.20 | 0.22 | 5.82 | 8.40 |
| 50 | 15.55 | 34.66 | 5.31 | 0.22 | 0.32 | 7.27 | 8.37 |
| 75 | 15.27 | 34.69 | 5.30 | 0.21 | 0.24 | 8.72 | 8.38 |
| 100 | 15.23 | 34.65 | 5.29 | 0.22 | 0.18 | 10.91 | 8.29 |
| 115 | 15.21 | 34.69 | 5.29 | 0.28 | 0.14 | 12.36 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 4 | 1840 | 118 | 5 | 12 | SW 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1000.3 | 17.8 | 17.1 | Sc-As | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.10 | 34.65 | 5.74 | 0.01 | 0.18 | 0 | 8.32 |
| 10 | 17.26 | 34.58 | 5.85 | 0.03 | 0.10 | 0.73 | — |
| 20 | 17.11 | 34.61 | 5.85 | 0.08 | 0.15 | 3.64 | 8.32 |
| 30 | 17.09 | 34.61 | 5.85 | 0.15 | 0.19 | 0.73 | 8.40 |
| 50 | 16.09 | 34.69 | 5.52 | 0.22 | 0.23 | 1.45 | 8.40 |
| 75 | 15.94 | 34.71 | 5.47 | 0.21 | 0.20 | 2.81 | 8.45 |
| 100 | 15.35 | 34.69 | 5.32 | 0.28 | 0.18 | 3.64 | 8.43 |
| 115 | 15.30 | 34.70 | 5.30 | 0.28 | 0.15 | — | 8.42 |

| St No. | Date | Tim | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 4 | 1940 | 110 | | | SW 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1000.3 | 17.9 | 16.9 | Sc-As | 7 | B |

OBSERVED

| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.20 | 34.63 | 5.86 | 0.06 | 0.11 | 0 | 8.40 |
| 10 | 17.11 | 34.58 | 5.76 | 0.07 | 0.14 | 0 | 8.30 |
| 20 | 16.75 | 34.59 | 5.73 | 0.07 | 0.17 | 1.45 | 8.38 |
| 30 | [illegible] | 34.6[illegible] | 5.61 | 0.10 | 0.15 | 0 | 8.41 |
| 50 | [illegible] | 34.73 | 5.52 | 0.15 | 0.07 | 0.73 | 8.38 |
| 75 | [illegible] | 34.7[illegible] | 5.42 | 0.13 | 0.09 | 6.54 | 8.40 |
| 100 | [illegible] | 34.67 | 5.47 | 0.17 | 0.09 | 18.18 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 4 | 2055 | 110 | | | SW 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1004.0 | 17.7 | 16.8 | Sc-As | 7 | C |

OBSERVED

| Z m | T C | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.00 | 34.61 | 5.83 | 0.03 | 0.11 | 14.54 | 8.40 |
| 10 | 17.02 | 34.61 | 5.85 | 0.04 | 0.12 | 8.00 | 8.38 |
| 20 | 16.90 | 34.61 | 5.74 | 0.06 | 0.07 | 10.91 | 8.44 |
| 30 | 16.50 | — | 5.85 | 0.13 | 0.18 | 14.54 | 8.40 |
| 50 | 16.01 | 34.71 | 5.69 | 0.08 | 0.23 | 18.90 | 8.45 |
| 75 | 15.69 | 34.71 | 5.52 | 0.10 | 0.26 | 22.54 | 8.30 |
| 105 | 15.60 | 34.67 | 5.30 | 0.13 | 0.34 | 9.27 | 8.35 |

6월 (June) 지리산 (Chi Ri San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 26 | 1445 | 80 | 4 | 13 | NE 4 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | | 21.3 | 20.4 | Cu | 7 | Bc |

OBSERVED

| Z m | T C | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.03 | 33.93 | — | 0.13 | 0.09 | 100.33 | 8.15 |
| 10 | 19.30 | 34.00 | 6.67 | 0.07 | 0.12 | 53.07 | 8.07 |
| 20 | 16.25 | 34.36 | 5.43 | 0.29 | 0.07 | 55.98 | 8.00 |
| 30 | 16.40 | 34.35 | — | 0.28 | 0.25 | 37.80 | 7.95 |
| 50 | 14.43 | 34.55 | 5.96 | 0.46 | 0.14 | 49.44 | 7.92 |
| 75 | 13.87 | 34.65 | 5.75 | 0.35 | 0.12 | 56.71 | 7.88 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 27 | 1040 | 98 | 3 | 24 | E 2 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 2 | | 20.8 | 20.2 | Ns | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.62 | 33.61 | 5.50 | 0.03 | 0.10 | 55.93 | 8.00 |
| 10 | 21.59 | 33.61 | 5.64 | 0.03 | 0.10 | 58.89 | — |
| 20 | 18.37 | 34.15 | 6.29 | 0.04 | 0.11 | 71.25 | 8.10 |
| 30 | 16.28 | 34.26 | 6.80 | 0.06 | 0.07 | 53.07 | 7.92 |
| 50 | 16.51 | 34.54 | 5.38 | 0.34 | 0.04 | 55.25 | 7.90 |
| 75 | 13.47 | 34.57 | 5.38 | 0.36 | 0.10 | 65.43 | 7.91 |
| 95 | 13.47 | 34.58 | 6.17 | 0.34 | 0.06 | 105.42 | 7.95 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 27 | 1210 | 115 | 3 | 23 | E 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | | 20.2 | 20.1 | Ns | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.31 | 33.78 | 5.93 | 0.03 | 0.04 | 42.17 | 8.00 |
| 10 | 21.69 | 33.87 | — | 0.29 | 0.02 | 41.44 | 8.15 |
| 20 | 20.17 | 34.02 | 6.18 | 0.34 | 0.02 | 39.99 | 8.16 |
| 30 | 17.26 | 34.13 | 6.45 | -- | | | 8.05 |
| 50 | 13.77 | 34.53 | 5.75 | 0.31 | 0.05 | 55.98 | 8.92 |
| 75 | 13.73 | 34.66 | 4.76 | 0.42 | 0.04 | 52.34 | 8.00 |
| 100 | 13.82 | 34.72 | 4.60 | - | -- | — | 7.95 |
| 110 | 13.80 | 34.72 | 4.49 | 0.46 | 0.02 | 44.35 | 7.93 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 27 | 1315 | 190 | 3 | 20 | E 3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 3 | | 20.6 | 20.4 | Ns | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.05 | 34.39 | 5.28 | 0.01 | 0.04 | 13.81 | 8.15 |
| 10 | 23.12 | 34.45 | 4.47 | 0.03 | 0.02 | 15.27 | 8.25 |
| 20 | 21.68 | 34.66 | 5.39 | 0.01 | 0.02 | 13.81 | 7.65 |
| 30 | 23.77 | 34.54 | 5.95 | 0.04 | 0.09 | 13.09 | 8.05 |
| 50 | 16.79 | 34.61 | 5.74 | 0.18 | 0.08 | 18.90 | 8.22 |
| 75 | 15.13 | 34.73 | 5.02 | 0.43 | 0.06 | 18.90 | 8.22 |
| 100 | 14.55 | 34.88 | 4.92 | 0.43 | 0.06 | 26.89 | 7.98 |
| 125 | 14.66 | 34.95 | 4.81 | 0.46 | 0.06 | 29.81 | 7.89 |
| 150 | 14.62 | 34.95 | 4.48 | 0.39 | 0.17 | 55.98 | 7.82 |
| 165 | 13.44 | 34.86 | 4.60 | 0.36 | — | 77.79 | 7.55 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 27 | 1420 | 165 | 3 | 18 | E 3 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 3 | | 20.0 | 19.9 | Ns | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.93 | 34.51 | 5.12 | 0.06 | 0.08 | 8.72 | 7.93 |
| 10 | 23.25 | 34.55 | 5.02 | 0.04 | 0.06 | 10.18 | 8.05 |
| 20 | 23.27 | 34.61 | 5.23 | 0.03 | 0.02 | 6.54 | 8.20 |
| 30 | 22.96 | 34.69 | — | 0.07 | 0.13 | 6.54 | 8.25 |
| 50 | 20.44 | 34.68 | 5.02 | 0.21 | 0.07 | 8.00 | 7.83 |
| 75 | 17.64 | 34.77 | 5.17 | 0.21 | 0.04 | 12.36 | 8.10 |
| 100 | 17.30 | 34.87 | 4.69 | 0.34 | 0.03 | 13.09 | 7.96 |
| 125 | 15.87 | 34.76 | 4.93 | 0.41 | 0.02 | 15.27 | 7.92 |
| 150 | 15.52 | 34.98 | 4.49 | 0.36 | 0.02 | 16.72 | 7.82 |
| 160 | 15.37 | 34.49 | 4.60 | — | — | — | 7.60 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 27 | 1715 | 100 | 3 | 15 | E 3 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 3 | | 20.1 | 19.6 | Ns | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.93 | 34.49 | 5.12 | 0.01 | — | 11.63 | 7.90 |
| 10 | 21.95 | 34.45 | 4.86 | — | — | — | 7.98 |
| 20 | 20.17 | 34.70 | 5.56 | 0.07 | 0.02 | 13.81 | 8.27 |
| 30 | 19.80 | 34.72 | 5.44 | 0.14 | 0.05 | 10.91 | 8.22 |
| 50 | 18.35 | 34.70 | 5.49 | 0.17 | 0.06 | 11.63 | 8.02 |
| 75 | 17.68 | 34.73 | 5.25 | 0.25 | 0.10 | 13.09 | 8.95 |
| 95 | 16.64 | 34.78 | 5.75 | 0.34 | 0.06 | 16.72 | 7.98 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 27 | 1855 | 108 | 3 | 16 | E 3 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 3 | | 20.3 | 20.0 | NS | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.23 | 34.30 | 5.54 | 0.21 | 0.02 | 11.63 | 8.01 |
| 10 | 22.23 | 34.35 | 5.41 | 0.14 | 0.03 | 15.27 | 8.00 |
| 20 | 21.69 | 34.58 | 5.43 | 0.18 | 0.03 | 18.18 | 8.15 |
| 30 | 21.18 | 34.99 | — | 0.13 | 0.02 | 21.81 | 8.23 |
| 50 | 19.54 | 34.71 | 5.44 | 0.10 | 0.04 | 25.45 | 8.26 |
| 75 | 17.36 | 34.77 | 6.07 | 0.27 | 0.24 | 23.99 | 8.00 |
| 100 | 16.30 | 34.78 | 5.23 | 0.29 | 0.22 | 17.45 | 8.07 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 30 | 1215 | 110 | 2 | 19 | ENE 2 | ENE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 2 | | 25.6 | 23.5 | Cc | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.30 | 34.38 | 5.28 | 0.03 | 0.02 | 6.54 | 8.10 |
| 10 | 22.21 | 34.42 | 5.21 | 0.01 | 0.02 | 17.45 | 8.25 |
| 20 | 22.03 | 34.40 | 4.76 | 0.01 | 0.02 | 13.09 | 8.32 |
| 30 | 20.26 | 34.44 | 5.77 | 0.01 | 0.02 | 21.81 | 8.27 |
| 50 | 17.71 | 34.71 | 4.79 | 0.01 | 0.03 | 22.54 | 8.17 |
| 75 | 16.04 | 34.87 | 4.60 | 0.21 | 0.09 | 32.72 | 7.55 |
| 105 | 16.52 | 34.94 | 5.06 | 0.29 | 0.04 | 39.26 | 8.01 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 30 | 1350 | 116 | 2 | 20 | ENE 2 | ENE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 2 | | 25.4 | 23.4 | Cc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.46 | 34.80 | 5.11 | 0.03 | 0.02 | 15.99 | 8.25 |
| 10 | 23.46 | 34.81 | 5.23 | 0.01 | 0.03 | 14.54 | 8.31 |
| 20 | 23.34 | 34.81 | 5.23 | 0.01 | 0.02 | 13.81 | 8.29 |
| 30 | 22.64 | 34.70 | 5.33 | 0.01 | 0.06 | 13.09 | 8.28 |
| 50 | 17.68 | 34.72 | 5.85 | 0.07 | 0.04 | 13.81 | 8.32 |
| 75 | 17.27 | 34.97 | 4.90 | 0.15 | 0.07 | 19.63 | 8.15 |
| 100 | 16.94 | 34.97 | 4.72 | 0.22 | 0.04 | 24.72 | 8.00 |
| 110 | 16.83 | 34.99 | 4.97 | — | — | — | 7.85 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 30 | 1515 | 105 | 5 | 20 | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | | 23.3 | 22.0 | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.44 | 34.85 | 5.18 | 0.01 | 0.02 | 14.54 | 8.15 |
| 10 | 23.41 | 34.84 | 5.12 | 0.01 | 0.02 | 5.09 | 8.20 |
| 20 | 23.35 | 34.84 | 5.40 | 0.15 | 0.04 | 7.27 | 8.25 |
| 30 | 23.06 | 34.85 | 5.02 | 0.15 | 0.07 | 7.27 | 8.35 |
| 50 | 19.49 | 34.77 | 5.95 | 0.24 | 0.09 | 8.00 | 8.40 |
| 75 | 17.81 | 34.95 | 5.41 | 0.39 | — | 10.91 | 8.35 |
| 100 | 17.77 | 34.97 | 5.59 | — | — | — | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 30 | 1640 | 104 | 3 | 21 | ENE 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 2 | | 23.4 | 22.2 | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.19 | 34.80 | 5.64 | 0.15 | 0.05 | 11.63 | 8.35 |
| 10 | 23.12 | 33.65 | 5.75 | 0.14 | 0.02 | 12.36 | 8.36 |
| 20 | 22.88 | 34.80 | 5.63 | 0.11 | 0.04 | 10.91 | 8.35 |
| 30 | 22.55 | 34.81 | 5.71 | 0.15 | 0.05 | 13.09 | 8.38 |
| 50 | 20.08 | 34.50 | 5.82 | — | — | — | 8.28 |
| 75 | 18.10 | 34.92 | 5.12 | 0.28 | 0.10 | 12.36 | 8.12 |
| 100 | 17.67 | 34.92 | 5.23 | 0.35 | 0.07 | 15.27 | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 30 | 1830 | 78 | 4 | 17 | ESE 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | | 22.8 | 22.2 | St | 10 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.02 | 34.83 | 5.38 | 0.15 | 0.01 | 13.09 | 7.89 |
| 10 | 22.97 | 34.81 | 5.56 | 0.10 | 0.02 | 6.54 | 8.09 |
| 20 | 22.58 | 34.82 | 5.64 | 0.15 | 0.02 | 8.72 | 8.24 |
| 30 | 22.21 | 34.79 | 5.59 | 0.17 | 0.01 | 10.18 | 8.28 |
| 50 | 21.77 | 34.83 | 5.93 | 0.13 | 0.02 | 10.18 | 8.12 |
| 75 | 20.12 | 34.86 | 5.34 | 0.17 | 0.03 | 8.72 | 8.15 |

10월 (October 백두산 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 28 | 1150 | 81 | 4 | 10 | E 4 | E 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1014.7 | 18.4 | | Ac | 1 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.80 | 34.06 | — | 0.21 | — | 13.09 | 7.59 |
| 10 | 19.07 | 33.47 | — | 0.03 | — | 10.18 | 8.28 |
| 20 | 19.05 | 33.48 | — | 0 | — | 8.00 | 8.16 |
| 30 | 19.02 | 33.47 | 5.45 | 0.10 | — | 6.54 | 8.32 |
| 50 | 19.03 | 33.49 | 5.38 | 0.01 | — | 16.72 | 8.37 |
| 75 | 15.92 | 34.47 | — | 0.64 | — | 26.89 | 7.85 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 28 | 1225 | 92 | 4 | 15 | E 4 | E 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1014.8 | 18.7 | | Ac | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.90 | 33.65 | 5.59 | 0.04 | — | 4.36 | 8.02 |
| 10 | 19.24 | 33.57 | 5.98 | 0.14 | — | 9.54 | 8.25 |
| 20 | 19.76 | 33.85 | 5.36 | 0.17 | — | 4.36 | 8.36 |
| 30 | 20.17 | 34.00 | 5.26 | 0 | — | 13.09 | 8.45 |
| 50 | 20.37 | 34.13 | 5.26 | 0.17 | — | 7.27 | 7.98 |
| 75 | 16.32 | 34.43 | 3.93 | 0.60 | — | 25.45 | 7.88 |
| 85 | 15.38 | 34.38 | 3.81 | 0.80 | — | 21.81 | 7.88 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 28 | 1315 | 103 | 3 | 21 | E 4 | E 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1014.7 | 21.2 | | Ac | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.20 | 34.53 | 5.20 | 0.21 | — | 8.00 | 8.18 |
| 10 | 21.69 | 34.45 | 5.26 | 0.15 | — | 10.18 | 8.29 |
| 20 | 21.70 | 34.44 | 5.18 | 0.08 | — | 21.08 | 8.40 |
| 30 | 21.66 | 34.44 | 5.16 | 0.07 | — | 19.63 | 8.27 |
| 50 | 21.68 | 34.45 | 5.26 | 0.14 | — | 19.63 | 8.30 |
| 75 | 15.13 | 33.98 | 4.35 | 0.56 | — | 36.35 | 7.88 |
| 100 | 15.47 | 34.41 | 3.92 | — | — | — | 7.85 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 28 | 1550 | 210 | 3 | 22 | E 4 | E 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1014.9 | 19.6 | | Ac | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.80 | 34.78 | 5.16 | 0.17 | — | 15.27 | 8.17 |
| 10 | 21.77 | 34.48 | 5.46 | — | — | 18.90 | 8.27 |
| 20 | 21.87 | 34.47 | 5.28 | — | — | 16.72 | 8.50 |
| 30 | 21.68 | 34.44 | 6.19 | 0.10 | — | 15.27 | 8.45 |
| 50 | 21.09 | 34.28 | 5.26 | 0.07 | — | 23.99 | — |
| 75 | 20.29 | 34.23 | 4.82 | 0.18 | — | 13.09 | 8.12 |
| 100 | 15.88 | 34.43 | 3.94 | 0.49 | — | 26.17 | 7.83 |
| 125 | 15.73 | 34.44 | 3.92 | 0.36 | — | 40.71 | 7.78 |
| 150 | 15.45 | 34.47 | 3.94 | 0.67 | — | 35.62 | 7.95 |
| 200 | 9.66 | 34.29 | 4.51 | 0.85 | — | 42.89 | 7.74 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 28 | 1605 | 162 | 3 | 20 | E 4 | E 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 4 | 1015.1 | 19.4 | | Ac | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.30 | 34.53 | 5.16 | 0.03 | — | 8.00 | 8.23 |
| 10 | 21.57 | 34.43 | — | 0.03 | — | 16.72 | 8.10 |
| 20 | 21.68 | 34.44 | 5.18 | 0.03 | — | 8.00 | 8.35 |
| 30 | 21.39 | 34.48 | 5.26 | 0.14 | — | 20.36 | 8.34 |
| 50 | 20.81 | 34.24 | 5.16 | 0.17 | — | 15.27 | 8.27 |
| 75 | 19.59 | 34.12 | 5.05 | 0.29 | — | 14.54 | 8.25 |
| 100 | 16.01 | 34.17 | 4.12 | 0.56 | — | 23.99 | 8.25 |
| 125 | 15.86 | 34.00 | 4.12 | 0.42 | — | 18.18 | 8.18 |
| 155 | 15.87 | 34.41 | 4.12 | 0.53 | — | 34.17 | 8.18 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 28 | | 93 | | | NE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1016.9 | 17.8 | | Ac | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.79 | 34.21 | 5.16 | 0.31 | — | 8.00 | 8.20 |
| 10 | 20.81 | 34.21 | 5.16 | 0.21 | — | 17.45 | 8.25 |
| 20 | 20.80 | 34.21 | 5.16 | 0.28 | — | 15.27 | 8.42 |
| 30 | 20.81 | 34.28 | 8.02 | 0.11 | — | 13.09 | 8.40 |
| 50 | 20.84 | 34.22 | 4.33 | 0.27 | — | 10.18 | 8.40 |
| 75 | 17.38 | 34.09 | 5.35 | 0.59 | — | 21.08 | 8.20 |
| 90 | 16.59 | 34.10 | 4.49 | 0.39 | — | 39.26 | 8.06 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 28 | 2140 | 100 | | | NE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1017.3 | 17.8 | | Ac | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.71 | 34.21 | 5.31 | 0.11 | — | 8.00 | 8.36 |
| 10 | 20.72 | 34.19 | 5.46 | 0.20 | — | 16.72 | 8.32 |
| 20 | 20.70 | 34.20 | 5.31 | 0.27 | — | 6.54 | 8.36 |
| 30 | 20.72 | 34.22 | 5.57 | 0.25 | — | 1.45 | 8.37 |
| 50 | 20.68 | 34.21 | 8.04 | 0.32 | — | 6.54 | 8.42 |
| 75 | 17.08 | 34.33 | 4.21 | 0.57 | — | 21.81 | 7.85 |
| 95 | 16.99 | 34.35 | 4.21 | 0.73 | — | 17.45 | 8.03 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 28 | 2310 | 108 | | | NE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1017.6 | 17.6 | | Ac | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.70 | 34.33 | 4.62 | 0.34 | — | 2.91 | 8.28 |
| 10 | 20.36 | 34.26 | 5.24 | 0.25 | — | 7.27 | 8.30 |
| 20 | 20.36 | 34.23 | 5.36 | 0.15 | — | 15.27 | 8.44 |
| 30 | 20.39 | 34.25 | 5.18 | 0.20 | — | 2.18 | 8.50 |
| 50 | 20.42 | 34.37 | 5.20 | 0.24 | — | — | 8.38 |
| 75 | 17.42 | 34.40 | 4.00 | 0.57 | — | 15.27 | 7.94 |
| 100 | 17.02 | 34.36 | 3.94 | 0.66 | — | 13.81 | 8.08 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 29 | 0045 | 112 | | | NE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1017.4 | 17.6 | | Ac | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.30 | 34.29 | 5.18 | 0.14 | — | 5.82 | 8.11 |
| 10 | 21.21 | 34.28 | 5.26 | 0.24 | — | 8.72 | 8.43 |
| 20 | 21.27 | 34.29 | 5.24 | 0.14 | — | 2.91 | 8.42 |
| 30 | 21.29 | 34.29 | 5.36 | 0.15 | — | 0 | 8.35 |
| 50 | 21.28 | 34.29 | 5.26 | 0.14 | — | 3.64 | 8.46 |
| 75 | 18.18 | 34.49 | 4.12 | 0.52 | — | 6.54 | 7.93 |
| 110 | 17.22 | 34.40 | 4.02 | 0.57 | — | 9.45 | 7.41 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 29 | 0200 | 108 | | | NE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1017.5 | 17.8 | | Ac | 4 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.20 | 34.32 | 5.16 | 0.24 | — | 3.64 | 8.06 |
| 10 | 21.43 | 34.31 | 5.05 | 0.11 | — | 4.36 | 8.32 |
| 20 | 21.49 | 34.32 | 5.24 | 0.15 | — | 3.64 | 8.48 |
| 30 | 21.52 | 34.32 | 5.07 | 0.28 | — | 2.91 | 8.48 |
| 50 | 21.47 | 34.31 | 5.19 | 0.24 | — | 10.18 | 8.35 |
| 75 | 19.09 | 34.15 | 4.95 | 0.32 | — | 13.81 | 7.65 |
| 100 | 17.51 | 34.35 | 4.04 | 0.28 | — | 13.09 | 7.68 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 29 | 0340 | 100 | | | NE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1017.2 | 17.8 | | Ac | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.40 | 34.33 | 5.36 | 0.29 | — | 3.64 | 7.98 |
| 10 | 21.43 | 34.27 | 5.09 | 0.07 | — | 5.82 | 8.50 |
| 20 | 21.48 | 34.27 | 5.46 | 0.10 | — | 8.72 | 8.48 |
| 30 | 21.49 | 34.26 | 5.05 | 0.11 | — | 0 | 8.47 |
| 50 | 21.49 | 34.28 | 5.05 | 0.18 | — | 4.36 | 8.45 |
| 75 | 21.32 | 34.32 | 5.16 | 0.24 | — | 2.18 | 8.23 |
| 95 | 18.91 | 34.35 | 4.80 | 0.42 | — | 12.36 | 8.25 |

11월 (November) 백두산 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 15 | 1915 | 64 | | | NE 2 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1023.0 | 10.0 | | | 0 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.62 | 33.39 | 5.77 | 0.14 | — | 19.63 | 8.42 |
| 10 | 16.63 | 33.37 | 5.69 | 0.14 | — | 21.81 | 8.20 |
| 20 | 16.40 | 33.56 | 5.51 | 0.01 | — | 26.89 | 8.17 |
| 30 | 16.04 | 33.77 | 5.18 | 0.42 | — | 23.26 | 8.15 |
| 50 | 15.55 | 34.27 | 3.81 | 0.28 | — | 37.08 | 8.02 |
| 60 | 15.35 | 34.31 | 3.83 | 0.07 | — | 39.99 | 8.05 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 15 | 2005 | 103 | | | NE 2 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 3 | 1023.0 | 10.1 | | | 0 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.59 | 33.24 | 6.10 | 0.06 | — | 18.18 | 8.25 |
| 10 | 16.55 | 33.23 | 5.79 | 0.25 | — | 13.09 | 8.25 |
| 20 | 16.59 | 33.22 | 5.88 | 0.07 | — | 13.09 | 8.24 |
| 30 | 16.35 | 33.35 | 5.28 | 0.01 | — | 14.54 | 8.24 |
| 50 | 15.30 | 34.02 | 4.41 | 0.07 | — | 26.89 | 8.15 |
| 75 | 15.76 | 34.34 | 4.02 | 0.10 | — | 18.18 | 8.06 |
| 100 | 13.95 | 34.33 | 5.02 | 0.18 | — | 14.54 | 8.07 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 15 | 2100 | 120 | | | NE 2 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1023.0 | 10.0 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.80 | 33.34 | 5.67 | 0.01 | — | 7.27 | 8.05 |
| 10 | 16.74 | 33.34 | 5.90 | 0.04 | — | 10.91 | 8.12 |
| 20 | 16.75 | 33.32 | 5.67 | 0.04 | — | 13.09 | 8.42 |
| 30 | 16.77 | 33.31 | 5.77 | 0.21 | — | 10.91 | 8.30 |
| 50 | 16.36 | 33.34 | 5.55 | 0.04 | — | 10.91 | 8.28 |
| 75 | 14.08 | — | 4.45 | 0 | — | 29.08 | 8.20 |
| 100 | 15.27 | 34.11 | 4.54 | 0 | — | 21.08 | 8.27 |
| 115 | 15.35 | 34.24 | 4.21 | — | — | 28.35 | 8.13 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 15 | 2155 | 220 | | | NE 2 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N E | 3 | 1023.0 | 9.9 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.77 | 33.99 | 5.26 | 0.03 | — | 29.08 | 8.30 |
| 10 | 18.85 | 34.01 | 5.44 | 0 | — | 5.82 | 8.35 |
| 20 | 18.83 | 34.01 | 5.26 | 0.03 | — | 10.91 | 8.10 |
| 30 | 18.87 | 34.00 | 5.57 | 0.07 | — | 19.63 | 8.15 |
| 50 | 18.54 | 34.02 | 4.74 | 0.10 | — | 13.81 | 8.20 |
| 75 | 16.96 | 33.86 | 4.23 | 0.35 | — | 26.89 | 8.12 |
| 100 | 14.76 | 33.92 | 3.90 | 0.07 | — | 21.81 | 8.33 |
| 125 | 15.73 | 34.22 | 4.32 | 0.29 | — | 21.81 | 8.27 |
| 150 | 14.77 | 34.32 | 5.16 | 0.14 | — | 21.81 | 8.21 |
| 200 | 7.93 | 34.17 | 5.16 | 0.57 | — | 34.90 | — |
| 215 | 7.55 | 34.20 | — | 0.27 | — | 25.45 | 8.13 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 15 | 2250 | 160 | | | NE 2 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1026.0 | 10.3 | | | 0 | B |

OBSERVED

| Z<br>*m* | T<br>℃ | S<br>‰ | $O_2$<br>% | $PO_4$-P<br>μg-at/L | $NO_2$-N<br>μg-at/L | $SiO_2$-Si<br>μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.46 | 34.21 | 5.38 | 0.10 | — | 26.89 | 8.25 |
| 10 | 19.55 | 34.22 | 5.36 | 0.10 | — | 14.54 | 8.28 |
| 20 | 19.51 | 34.22 | 5.07 | 0.10 | — | 18.18 | 8.08 |
| 30 | 19.53 | 34.22 | 5.46 | 0.14 | — | 14.54 | 8.12 |
| 50 | 19.50 | 34.22 | 5.44 | 0.08 | — | 5.09 | 8.13 |
| 75 | 17.33 | 34.13 | 4.31 | 0.03 | — | 18.18 | 8.02 |
| 100 | 16.22 | 34.22 | 4.02 | 0.14 | — | 43.62 | 7.95 |
| 125 | 15.68 | 34.20 | 3.92 | 0.15 | — | 43.62 | 7.98 |
| 150 | 15.79 | 34.28 | 3.92 | 0.14 | — | 28.35 | 7.96 |
| 155 | 15.80 | 34.28 | 4.02 | 0.31 | — | 20.36 | 7.95 |

# 207선 해 양 관 측 성 적

## Oceanographic Data, Line 207

| Month | | 1월 (68년) 백 두 산 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | 12 | 11 | 10 | 09 | 08 | 07 | 05 | 04 | 03 | 02 | 01 |
| Day | | 11 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Item | Time / Z(m) | 2205 | 2310 | 0030 | 0150 | 0255 | 0415 | 0650 | 0740 | 0840 | 0930 | 1025 |
| T | 0 | 16.04 | 16.06 | 16.24 | 16.29 | 16.53 | 14.96 | 16.22 | 15.60 | 15.23 | 14.97 | 11.27 |
| | 10 | 16.01 | 16.07 | 16.41 | 16.27 | 16.51 | 14.95 | 16.27 | 15.99 | 15.41 | 15.02 | 11.28 |
| | 20 | 16.03 | 16.07 | 16.50 | 16.25 | 16.57 | 14.94 | 16.31 | 16.03 | 15.40 | 15.35 | 11.22 |
| | 30 | 16.05 | 16.07 | 16.46 | 16.32 | 16.52 | 15.01 | 16.27 | 15.99 | 15.47 | 14.97 | 11.21 |
| | 50 | — | 16.06 | 16.44 | 16.27 | 16.53 | 14.89 | 16.30 | 16.00 | 15.42 | 14.42 | 10.92 |
| | 75 | — | 16.13 | 16.38 | 16.35 | 16.60 | 14.86 | 16.21 | 15.83 | 15.42 | 13.55 | — |
| ℃ | 100 | — | — | — | — | — | — | 16.19 | 15.42 | 15.44 | — | — |
| | 125 | — | — | — | — | — | — | — | 14.83 | — | — | — |
| | 150 | — | — | — | — | — | — | — | 13.01 | — | — | — |
| | Botm | 16.08 | 16.06 | 16.36 | 16.37 | 16.62 | 14.88 | 16.15 | 11.92 | 14.67 | 13.25 | 10.81 |
| S | 0 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| | 50 | | | | | | | | | | | |
| | 75 | | | | | | | | | | | |
| ‰ | 100 | | | | | | | | | | | |
| | 125 | | | | | | | | | | | |
| | 150 | | | | | | | | | | | |
| | Botm | | | | | | | | | | | |
| Depth(m) | | 84 | 102 | 102 | 108 | 105 | 95 | 145 | 220 | 120 | 95 | 77 |
| Water Trans. (m) | | — | — | — | — | — | — | — | 21 | 17 | 13 | 6 |
| Water Color | | — | — | — | — | — | — | — | 5 | 5 | 6 | 7 |
| Wave | | SW2 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW2 |
| Swell | | SW2 | SW2 | SW2 | SW2 | SW2 | 1 | SW1 | SW1 | SW1 | SW1 | SW1 |
| Air Temp(°C) | | 10.2 | 8.3 | 8.4 | 8.4 | 7.0 | 7.2 | 6.6 | 6.4 | 6.7 | 5.9 | 5.4 |
| Baro. (mb) | | 1025.1 | 1025.3 | 1025.0 | 1025.4 | 1025.3 | 1025.1 | 1025.6 | 1026.1 | 1026.0 | 1026.2 | 1026.5 |
| Wind | | SW10 | SW14 | SW10 | SW10 | SW13 | SW9 | SW8 | SW9 | SW8 | SW8 | SW6 |
| Cloud | | As8 | As7 | As7 | As8 | As4 | As3 | 2 | 2 | 1 | 2 | 2 |
| Weather | | C | BC | BC | C | BC | BC | B | B | B | B | B |

# 208선 해 양 관 측 성 적

## Oceanographic Data, Line 208

1월 (January) 북한산 (Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 21 | 205 | 63 | 6 | 7 | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1031.6 | 10.9 | | St | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.00 | 34.35 | 6.27 | 0 | 0.30 | 30.53 | 8.12 |
| 10 | 12.33 | 34.35 | 6.33 | 0 | 0.31 | 31.26 | 8.21 |
| 20 | 12.52 | 34.35 | 5.96 | 0 | 0.26 | 29.08 | 8.21 |
| 30 | 12.54 | 34.36 | 5.73 | 0 | 0.13 | 29.08 | 8.19 |
| 50 | 12.43 | 34.36 | 5.26 | 0.15 | 0.12 | 27.63 | 8.23 |
| 60 | 12.38 | 34.37 | 5.74 | 0.17 | 0.11 | 26.17 | 8.16 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 21 | 1055 | 100 | 5 | 12 | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1031.6 | 8.7 | | St | 4 | $B^c$ |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.90 | 34.42 | 5.76 | 0.27 | 0.39 | 29.08 | 8.09 |
| 10 | 13.34 | 34.38 | 5.64 | 0.07 | 0.28 | 26.17 | 8.15 |
| 20 | 13.59 | 34.38 | 5.71 | 0.13 | 0.40 | 51.62 | 8.14 |
| 30 | 13.68 | 34.36 | 5.73 | 0.41 | 0.20 | 50.16 | 8.26 |
| 50 | 13.58 | 34.33 | 6.03 | 0.60 | 0.23 | 53.07 | 8.18 |
| 75 | 13.21 | 34.28 | 6.15 | 0.01 | 0.20 | 64.70 | 8.21 |
| 95 | 11.62 | 34.36 | 6.29 | 0.04 | 0.22 | 14.54 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 21 | 0930 | 146 | 4 | 12 | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1032.0 | 8.7 | | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.70 | 34.40 | 6.00 | 0.15 | 0.30 | 22.54 | 8.11 |
| 10 | 11.93 | 34.39 | 5.83 | 0.20 | 0.32 | 25.45 | 8.21 |
| 20 | 13.28 | 34.36 | 5.86 | 0.15 | 0.32 | 29.81 | 8.21 |
| 30 | 13.25 | 34.36 | 5.86 | 0.14 | 0.26 | 29.81 | 8.28 |
| 50 | 12.95 | 34.38 | 5.96 | 0.24 | 0.16 | 24.72 | 8.24 |
| 75 | 12.97 | 34.32 | 5.86 | 0.15 | 0.22 | 21.81 | 8.00 |
| 100 | 12.73 | 34.33 | 5.79 | 0.21 | — | — | 8.24 |
| 125 | 12.05 | 34.35 | 7.25 | 0.08 | 0.19 | 28.35 | 8.21 |
| 140 | 11.84 | 34.35 | 5.99 | 0.14 | 0.06 | 28.35 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 21 | 0705 | 144 | | | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1031.3 | 8.9 | | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| | | 34.51 | 5.90 | 0.25 | | 25.45 | 8.21 |
| | | 34.46 | 5.84 | 0.31 | | 27.81 | 8.21 |
| | | 34.40 | 5.91 | 0.11 | | 21.36 | 8.21 |
| | | 34.45 | 5.88 | 0 | 0.27 | 21.08 | 8.21 |
| 50 | | 34.47 | 5.88 | — | — | — | 8.10 |
| | | | 5.74 | | | | 8.11 |
| | | | 6.24 | — | | — | 8.13 |
| | | | 5.87 | | | | 8.25 |
| 140 | | | 5.86 | 0 | 0.09 | 27.63 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 21 | 0510 | 128 | | | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1031.0 | 9.9 | | St | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.20 | 34.47 | 5.74 | 0 | 0.32 | 25.45 | 8.21 |
| 10 | 12.00 | 34.48 | 5.75 | 0.36 | 0.34 | 21.81 | 8.21 |
| 20 | 14.03 | 34.45 | 5.75 | 0.17 | 0.34 | 24.72 | 8.14 |
| 30 | 13.56 | 34.45 | 7.78 | 0.10 | 0.37 | 19.63 | 8.28 |
| 50 | 14.05 | 34.44 | 5.69 | 0.03 | 0.16 | 22.54 | 8.14 |
| 75 | 14.08 | 34.45 | 5.70 | 0.14 | 0.12 | 21.81 | 8.16 |
| 100 | 14.03 | 34.45 | 5.81 | 0.45 | 0.06 | 12.36 | 8.13 |
| 125 | 14.02 | 34.45 | 5.86 | 0.27 | 0.08 | 19.63 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 21 | 0330 | 123 | | | NW2 | NW2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1031 | 10.9 | | St | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.40 | 34.47 | 5.72 | 0.08 | 0.43 | 18.18 | 8.10 |
| 10 | 12.95 | 34.44 | 5.81 | 0 | 0.41 | 19.63 | 8.21 |
| 20 | 14.29 | 34.45 | 5.90 | 0.10 | 0.31 | 13.81 | 8.25 |
| 30 | 14.08 | 34.46 | 5.90 | 0 | 0.20 | 18.90 | 8.28 |
| 50 | 14.35 | 34.46 | 5.75 | 0 | 0.10 | 17.45 | 8.29 |
| 75 | 14.36 | 34.46 | 5.76 | 0 | 0.08 | 18.90 | 8.20 |
| 100 | 14.37 | 34.46 | 5.84 | 0.13 | 0.07 | 18.90 | 8.30 |
| 120 | 14.16 | 34.44 | 5.73 | 0.14 | 0.10 | 21.08 | 8.28 |

| Ss No | Date | Time | Depth | Water Color | Water Trans. | Wave | Swel l |
|---|---|---|---|---|---|---|---|
| 07 | 21 | 0150 | 123 | | | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1031.0 | 10.8 | | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.60 | 34.47 | 5.81 | 0.27 | 0.42 | 10.91 | 8.29 |
| 10 | 13.10 | 34.44 | 5.86 | 0.15 | 0.40 | 13.81 | 8.25 |
| 20 | 14.27 | 34.44 | 5.81 | 0.39 | — | 14.54 | 8.26 |
| 30 | 14.27 | 34.45 | 5.91 | 0.06 | 0.31 | 15.27 | 8.20 |
| 50 | 14.00 | 34.45 | 5.86 | 0.10 | 0.14 | 18.90 | 8.22 |
| 75 | 14.23 | 34.44 | 5.76 | 0.03 | 0.09 | 17.45 | 8.28 |
| 100 | 14.19 | 34.44 | 5.78 | 0 | 0.08 | 21.81 | 8.22 |
| 125 | 14.13 | 34.44 | 5.79 | 0.03 | 0.10 | 23.99 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 21 | 0020 | 130 | | | NW2 | NW2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1031.0 | 10.6 | | St | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.50 | 34.50 | 5.77 | 0.10 | 0.22 | 15.99 | 8.22 |
| 10 | 13.55 | 34.49 | 5.86 | 0.14 | 0.19 | 18.18 | 8.13 |
| 20 | 14.41 | 34.49 | 5.75 | 0.34 | 0.28 | 19.63 | 8.25 |
| 30 | 13.86 | 34.50 | 5.67 | 0.13 | 0.17 | 21.08 | 8.25 |
| 50 | 13.86 | 34.51 | 5.65 | 0.01 | 0.14 | 18.18 | 8.23 |
| 75 | 14.30 | 34.49 | 5.87 | 0.09 | 0.09 | 22.54 | 8.23 |
| 100 | 4.17 | 34.51 | 5.88 | 0.49 | 0.11 | 21.81 | 8.17 |
| 125 | 14.11 | 34.49 | 5.76 | 0 | 0.14 | 22.54 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 20 | 2250 | 115 | | | NWW 2 | WNW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1032.0 | 11.2 | | St | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.50 | 34.51 | 5.86 | 0.14 | 0.26 | 13.09 | 8.21 |
| 10 | 13.32 | 34.48 | 5.61 | 0.04 | 0.18 | 15.27 | 8.20 |
| 20 | 14.27 | 34.48 | 5.57 | 0.17 | 0.18 | 10.91 | 8.23 |
| 30 | 14.12 | 34.48 | 5.77 | 0.29 | 0.10 | 13.09 | 8.24 |
| 50 | 14.31 | 34.49 | 5.45 | 0.31 | 0.10 | 9.45 | 8.11 |
| 75 | 14.29 | 34.48 | 5.89 | 0 | 0.09 | 17.45 | 8.22 |
| 100 | 14.21 | 34.48 | 5.77 | 0.06 | 0.03 | 13.81 | 8.25 |
| 110 | 14.23 | 34.50 | 5.14 | 0.07 | — | 15.99 | 8.24 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 20 | 2115 | 117 | | | WNW 2 | WNW2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1031.0 | 11.0 | | St | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.80 | 34.52 | 5.63 | 0.10 | 0.37 | 16.72 | 8.12 |
| 10 | 14.34 | 34.51 | 5.65 | 0.18 | 0.31 | 18.90 | — |
| 20 | 14.71 | 34.52 | 5.67 | 0.11 | 0.28 | 24.72 | 8.03 |
| 30 | 14.71 | 34.53 | 5.75 | 0.42 | 0.22 | 18.90 | 8.20 |
| 50 | 14.71 | 34.51 | 5.63 | 0.28 | 0.15 | 18.18 | 8.22 |
| 75 | 14.71 | 34.51 | 5.75 | 0.08 | 0.07 | 23.26 | 8.22 |
| 100 | 13.72 | — | 5.87 | 0.10 | 0.04 | 18.12 | 8.22 |
| 115 | 13.36 | 34.50 | 5.88 | 0.14 | 0.06 | 13.81 | 8.12 |

4월 (April) 최양호 (Chuck Yang Ho)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 25 | 2115 | 67 | | | E. 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 0 | 1000 0 | 14. 4 | 14. 2 | Sc | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14. 10 | 34. 31 | 6. 51 | 0. 03 | 0. 01 | 29. 08 | 8. 17 |
| 10 | 13. 83 | 34. 35 | 6. 30 | 0. 04 | 0. 01 | 30. 53 | 8. 13 |
| 20 | 13. 06 | 34. 36 | 6. 15 | 0. 07 | 0 | 29. 08 | 8. 12 |
| 30 | 13. 83 | 34. 36 | 6. 15 | 0. 07 | — | 30. 53 | 8. 11 |
| 50 | 12. 65 | 34. 35 | 6. 17 | 0. 13 | 0 | — | 8. 05 |
| 65 | 12. 27 | 34. 37 | 5. 86 | 0. 15 | 0 | 34. 17 | 8. 12 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 25 | 2015 | 102 | | | E. 1 | NE. 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 10120 | 15. 1 | 14. 8 | Sc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15. 00 | 34. 41 | 6. 96 | 0. 10 | 0 | 10. 91 | 8. 06 |
| 10 | 15. 12 | 34. 48 | 6. 90 | 0. 13 | 0 | 18. 18 | 8. 18 |
| 20 | 14. 73 | 34. 52 | 6. 65 | 0. 15 | 0. 01 | 21. 81 | 8. 23 |
| 30 | 14. 71 | 34. 48 | 6. 66 | 0. 21 | 0. 04 | 33. 44 | 8. 20 |
| 50 | 13. 13 | 34. 45 | 6. 23 | 0. 35 | 0. 01 | 36. 35 | 8. 20 |
| 75 | 12. 53 | 34. 38 | 5. 86 | 0. 83 | 0. 02 | 41. 44 | 8. 18 |
| 100 | 4. 40 | 34. 20 | 5. 32 | — | — | — | 7. 92 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 25 | 1840 | 120 | 5 | 7 | SW 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1004.0 | 15.8 | 15.5 | Sc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.60 | 34.47 | 6.51 | 0.18 | 0.07 | 13.09 | 7.95 |
| 10 | 15.35 | 34.46 | 6.39 | 0.15 | 0.03 | 21.08 | 8.18 |
| 20 | 14.50 | 34.47 | 6.22 | 0.15 | 0.02 | 23.99 | 8.18 |
| 30 | 13.45 | 34.46 | 6.19 | 0.14 | 0.02 | 24.72 | 8.14 |
| 50 | 12.56 | 34.36 | 5.90 | 0.18 | 0 | 26.89 | 8.10 |
| 75 | 11.98 | 34.31 | 5.74 | 0.21 | 0 | 35.62 | 8.08 |
| 100 | 10.89 | 34.37 | 5.68 | 0.32 | 0.01 | 42.17 | 8.06 |
| 115 | 8.32 | 34.32 | 5.55 | 0.50 | 0 | 47.26 | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 25 | 1710 | 144 | 6 | 6 | SE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1004.0 | 20.8 | 19.9 | Sc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.00 | 34.63 | 7.01 | 0.20 | — | 10.91 | 8.20 |
| 10 | 15.83 | 34.58 | 6.65 | 0.20 | 0.03 | 11.63 | 8.20 |
| 20 | 15.02 | 34.52 | 6.39 | 0.21 | 0 | 11.63 | 8.13 |
| 30 | 14.00 | 34.48 | 6.30 | 0.22 | 0.02 | 13.09 | 8.15 |
| 50 | 13.59 | 34.40 | 6.17 | 0.24 | 0.02 | 14.54 | 8.15 |
| 75 | 13.41 | 34.47 | 5.97 | 0.39 | 0.05 | 16.72 | 8.13 |
| 100 | 13.19 | 34.46 | 5.85 | 0.46 | 0.05 | 14.54 | 8.12 |
| 125 | 12.63 | 34.40 | 5.81 | 0.45 | 0.05 | 15.27 | 8.15 |
| 140 | 8.20 | 34.33 | 5.55 | 0.50 | 0.12 | 45.45 | 7.87 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 25 | 1540 | 138 | 5 | 7 | NE 2 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1003.0 | 19.1 | 18.6 | Sc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.70 | 34.49 | 6.39 | 0.06 | 0.02 | 4.36 | 8.06 |
| 10 | 15.34 | 34.70 | 6.54 | 0.10 | 0 | 5.09 | 8.17 |
| 20 | 15.36 | 34.63 | 6.50 | 0.14 | 0 | 10.91 | 8.20 |
| 30 | 14.80 | 34.63 | 6.04 | 0.17 | 0.01 | 12.36 | 8.19 |
| 50 | 14.38 | 34.62 | 5.76 | 0.22 | 0 | 14.54 | 8.16 |
| 75 | 14.13 | 34.62 | 5.67 | 0.28 | 0.04 | 14.54 | 8.07 |
| 100 | 13.89 | 34.58 | 5.78 | 0.29 | 0.03 | 12.36 | 8.14 |
| 125 | 13.61 | 34.58 | 5.75 | 0.29 | 0 | 13.81 | 7.98 |
| 135 | 13.20 | 34.59 | 5.62 | 0.32 | 0.02 | 14.54 | 8.11 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 25 | 1415 | 148 | 5 | 7 | NE 3 | N. 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1000.7 | 17.6 | 17.3 | Sc | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.50 | 34.60 | 6.71 | 0.10 | 0.03 | 10.18 | 8.12 |
| 10 | 15.02 | 34.66 | 6.76 | 0.15 | 0.01 | 10.91 | 8.18 |
| 20 | 14.52 | 34.66 | 6.50 | 0.15 | 0.02 | 12.36 | 8.20 |
| 30 | 14.33 | 34.60 | 6.28 | 0.14 | 0.02 | 12.36 | 8.15 |
| 50 | 14.12 | 34.64 | 5.74 | 0.18 | 0.02 | 14.54 | 8.16 |
| 75 | 14.11 | 34.65 | 5.71 | 0.15 | 0.05 | 13.09 | 8.16 |
| 100 | 14.06 | 34.66 | 5.63 | 0.20 | 0.06 | 14.54 | 8.10 |
| 125 | 13.50 | — | 5.21 | — | 0.07 | 25.45 | 8.07 |
| 145 | 11.83 | 34.62 | 5.22 | 0.21 | 0.05 | 26.89 | 8.06 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 25 | 1250 | 130 | 5 | 5 | NE 3 | N 1 |

| Wind | | Baro. | Air temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1000.6 | 16.4 | 15.3 | Sc | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.60 | 34.70 | 6.76 | 0.08 | 0.06 | 13.81 | 8.05 |
| 10 | 15.12 | 34.63 | 6.82 | 0.18 | 0.01 | 14.54 | 8.04 |
| 20 | 14.59 | 34.61 | 5.99 | 0.27 | 0.02 | 15.27 | 8.02 |
| 30 | 14.45 | 34.62 | 5.90 | 0.29 | 0.09 | 15.99 | 8.09 |
| 50 | 14.35 | 34.65 | 5.45 | 0.35 | 0.15 | 20.36 | 8.15 |
| 75 | 14.21 | 34.64 | 5.39 | 0.77 | — | 19.63 | 8.14 |
| 100 | 14.21 | 34.64 | 5.37 | 0.91 | 0.16 | 20.36 | — |
| 125 | 14.16 | 34.66 | 5.44 | 0.13 | 0.13 | 25.45 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 25 | 1135 | 124 | 5 | 5 | NE 3 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1004.0 | 15.7 | 14.9 | Sc | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | PH |
|---|---|---|---|---|---|---|---|
| 0 | 15.40 | 34.62 | 6.53 | 0.08 | 0.12 | 9.45 | 8.07 |
| 10 | 15.18 | 34.65 | 6.57 | 0.10 | 0.03 | 13.09 | 8.10 |
| 20 | 14.91 | 34.64 | 6.17 | 0.15 | 0.01 | 13.81 | 8.15 |
| 30 | 14.90 | 34.63 | 6.11 | 0.18 | 0.02 | 12.36 | 8.16 |
| 50 | 14.76 | 34.66 | 5.84 | 0.20 | 0.01 | 10.91 | 8.13 |
| 75 | 14.70 | 34.71 | 5.42 | 0.22 | 0.09 | 14.54 | 8.12 |
| 100 | 14.69 | 34.69 | 5.42 | 0.20 | 0.11 | 15.99 | 8.15 |
| 120 | 14.52 | 34.71 | 5.39 | 0.17 | 0.12 | 18.18 | 8.13 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 25 | 1025 | 130 | 5 | 10 | NE 3 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1004.0 | 15.8 | 15.1 | Sc | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.10 | 34.68 | 6.04 | 0.03 | — | — | 8.14 |
| 10 | 15.30 | 34.66 | 6.01 | 0.08 | 0 | 12.36 | 8.15 |
| 20 | 15.11 | 34.66 | 5.85 | 0.11 | 0 | 12.36 | 8.13 |
| 30 | 14.94 | 34.67 | 5.62 | 0.14 | 0.02 | 14.54 | 8.12 |
| 50 | 14.87 | 34.65 | 5.59 | 0.13 | 0.02 | 15.99 | 8.09 |
| 75 | 14.73 | 34.69 | 5.44 | — | 0.03 | 13.81 | 8.10 |
| 100 | 14.70 | 34.71 | 5.47 | 0.15 | 0.02 | 13.09 | 8.12 |
| 125 | 14.72 | 34.70 | 5.45 | 0.15 | 0 | 15.99 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 25 | 0850 | 130 | 4 | 11 | NE 3 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1000.4 | 15.6 | 15.3 | Sc | 4 | 1 |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.20 | 34.71 | 6.27 | 0.06 | 0 | 14.54 | 8.00 |
| 10 | 15.45 | 34.68 | 6.38 | 0.07 | 0.02 | 12.36 | 8.10 |
| 20 | 15.30 | 34.71 | 6.21 | 0.10 | 0.01 | 13.09 | 8.11 |
| 30 | 15.19 | 34.69 | 5.55 | 0.08 | 0 | 10.91 | 8.13 |
| 50 | 15.14 | 34.69 | 5.55 | 0.10 | 0.02 | 12.36 | 8.10 |
| 75 | 15.07 | 34.71 | 5.52 | 0.13 | 0 | 14.54 | 8.07 |
| 100 | 15.05 | 34.72 | 5.44 | 0.07 | 0.01 | 14.54 | 8.10 |
| 125 | 14.91 | 34.71 | 5.50 | 0.17 | 0.01 | 15.27 | 8.12 |

6월 (June) 북한산 (Buk Han San))

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 24 | 0740 | 105 | 4 | 21 | SW. 3 | S. 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | | 23. 1 | 22. 4 | St. Cc | 8 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23. 44 | 34. 81 | 5. 21 | 0. 03 | — | 15. 99 | 8. 15 |
| 10 | 23. 43 | 34. 80 | 5. 52 | 0. 18 | 0. 08 | 21. 81 | 8. 25 |
| 20 | 22. 98 | 34. 78 | 5. 36 | 0. 17 | 0. 08 | 26. 89 | 8. 25 |
| 30 | 22. 66 | — | 5. 42 | 0. 14 | 0. 04 | 32. 72 | 8. 25 |
| 50 | 19. 90 | 34. 86 | 5. 57 | 0. 21 | 0. 08 | 42. 89 | 8. 18 |
| 75 | 18. 40 | 34. 93 | 5. 21 | — | — | — | 8. 15 |
| 100 | 18. 38 | 34. 95 | 5. 10 | 0. 35 | 0. 06 | 35. 62 | 8. 15 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 24 | 0915 | 124 | 4 | 122 | WSW 3 | WSW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | | 23. 9 | 22. 6 | Cs | 10 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23. 13 | 34. 80 | 5. 52 | 0. 20 | 0. 02 | 14. 54 | 8. 10 |
| 10 | 23. 15 | 34. 83 | 5. 10 | 0. 14 | 0. 04 | 13. 09 | 8. 13 |
| 20 | 22. 95 | 34. 83 | 5. 10 | 0. 14 | 0. 06 | 10. 18 | 8. 24 |
| 30 | 22. 29 | 34. 83 | 5. 30 | — | — | — | 8. 25 |
| 50 | 19. 81 | 34. 84 | 5. 40 | — | — | — | 8. 15 |
| 75 | 17. 37 | 34. 85 | 5. 42 | 0. 36 | 0. 04 | 28. 35 | 8. 13 |
| 100 | 17. 30 | 34. 99 | 5. 62 | 0. 35 | 0. 07 | 40. 71 | 8. 28 |
| 120 | 17. 24 | 35. 06 | 4. 95 | 0. 22 | 0. 10 | 21. 81 | 8. 17 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 24 | 1040 | 130 | 4 | 21 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.59 | 34.78 | 5.10 | 0.06 | 0.04 | 18.18 | 8.23 |
| 10 | 23.61 | 34.81 | 5.21 | 0.08 | 0.02 | 12.36 | 8.22 |
| 20 | 21.89 | 34.52 | 5.81 | 0.14 | 0.01 | 15.27 | 8.05 |
| 30 | 19.73 | 34.60 | 5.92 | 0.18 | 0.06 | 16.72 | 8.01 |
| 50 | 16.91 | 34.79 | 5.90 | 0.35 | 0.07 | 15.27 | 7.89 |
| 75 | 16.97 | 34.97 | 5.90 | — | — | — | 7.85 |
| 100 | 16.86 | 34.97 | 5.00 | 0.41 | 0.08 | 21.81 | 7.83 |
| 125 | 16.42 | 34.99 | 4.98 | 0.42 | 0.09 | 24.72 | 7.89 |

| St No. | Date | Time | Depth | Water Color | Water Temp. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 24 | 1220 | 130 | 3 | 20 | SW 3 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | | 24.5 | 24.0 | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.34 | 34.60 | — | 0.14 | 0.04 | 15.27 | 7.92 |
| 10 | 23.64 | 34.56 | 5.21 | 0.24 | 0.04 | 18.90 | 7.93 |
| 20 | 22.46 | 34.32 | 5.54 | 0.08 | 0.02 | 11.63 | 8.00 |
| 30 | 19.60 | 34.76 | 5.91 | 0.13 | 0.02 | 11.63 | 8.09 |
| 50 | 16.93 | 34.94 | 5.83 | 0.20 | 0.07 | 18.90 | 8.15 |
| 75 | 16.24 | 34.97 | 4.90 | 0.56 | 0.30 | 26.89 | 8.14 |
| 100 | 15.42 | 34.90 | 4.79 | 0.43 | 0.09 | 34.90 | 8.07 |
| 125 | 13.34 | 34.59 | 4.90 | 0.34 | 0.08 | 4.36 | 7.95 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 24 | 1345 | 120 | 2 | 22 | SW3 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | | 25.3 | 23.8 | Ci | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.36 | 35.41 | 5.40 | 0.04 | 0.03 | — | 8.05 |
| 10 | 23.30 | 34.94 | 5.23 | 0.15 | 0.04 | 10.91 | 8.25 |
| 20 | 20.63 | 35.12 | 6.31 | 0.08 | 0.05 | 15.27 | 8.37 |
| 30 | 17.45 | 35.08 | 6.04 | 0.14 | 0.08 | 20.36 | 8.15 |
| 50 | 16.24 | 34.99 | — | 0.13 | 0.08 | 26.89 | 8.02 |
| 75 | 16.06 | 34.84 | 4.71 | 0.14 | 0.12 | 21.08 | 8.17 |
| 100 | 15.82 | 34.63 | 4.19 | 0.17 | 0.14 | 22.54 | 8.01 |
| 115 | 14.83 | 34.53 | 4.69 | 0.22 | 0.06 | 34.90 | 7.90 |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 24 | 1530 | 125 | 3 | 20 | SW2 | SW1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | | 25.0 | 24.4 | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.80 | 34.40 | 5.54 | 0.03 | 0.04 | 13.09 | 7.95 |
| 10 | 22.50 | 34.43 | 5.66 | 0.03 | 0.04 | 15.27 | 7.98 |
| 20 | 21.97 | 34.41 | 5.49 | 0.06 | 0.02 | 14.54 | 8.15 |
| 30 | 19.58 | 34.28 | — | 0.08 | 0.04 | 14.54 | 8.16 |
| 50 | 17.08 | 34.76 | 6.06 | 0.14 | 0.03 | 15.27 | 8.15 |
| 75 | 15.46 | 34.79 | 5.41 | 0.14 | 0.02 | 21.08 | 7.95 |
| 100 | 14.60 | [illegible] | 5.53 | 0.15 | [illegible] | [illegible] | [illegible] |
| 125 | 14.10 | [illegible] | 4.81 | 0.22 | [illegible] | [illegible] | [illegible] |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 24 | 1710 | 150 | 3 | 19 | SW3 | SW3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 4 | [illegible] | 23.2 | 22.6 | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.46 | 34.28 | 5.41 | 0.08 | 0.09 | 44.35 | 7.96 |
| 10 | 22.47 | 34.30 | 5.46 | 0.19 | 0.06 | 43.62 | 8.10 |
| 20 | 22.43 | 34.30 | 5.59 | 0.07 | 0.02 | 16.72 | 7.95 |
| 30 | 22.36 | 34.37 | 5.54 | 0.15 | 0.02 | 20.36 | 7.79 |
| 50 | 20.23 | 34.26 | 5.44 | 0.14 | 0.03 | 18.18 | 7.75 |
| 75 | 15.42 | 34.60 | 5.38 | — | — | — | 7.95 |
| 100 | 15.09 | 34.79 | 5.35 | 0.15 | 0.02 | 50.89 | 8.05 |
| 125 | 14.75 | 34.96 | 4.60 | 0.39 | 0.02 | 41.44 | 7.95 |
| 145 | 14.35 | 34.96 | 4.61 | 0.29 | 0.10 | 57.43 | 7.95 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 24 | 1950 | 140 | 3 | | SW4 | SW3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 4 | | 22.8 | 21.8 | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.10 | 34.77 | 4.51 | 0.01 | 0.10 | 36.35 | 8.00 |
| 10 | 23.08 | 34.69 | 5.02 | 0.18 | 0.06 | 50.16 | 8.07 |
| 20 | 23.10 | 34.71 | 5.14 | 0.10 | 0.04 | 63.25 | 8.25 |
| 30 | 19.04 | 34.46 | 5.07 | 0.15 | 0.04 | 45.80 | 8.25 |
| 50 | 17.07 | 34.78 | 5.85 | 0.21 | 0.13 | 55.25 | 8.08 |
| 75 | 16.04 | 34.77 | 5.85 | 0.20 | 0.24 | 48.71 | 7.99 |
| 100 | 15.22 | 34.78 | — | 0.21 | 0.10 | 58.89 | 8.05 |
| 135 | 14.61 | 34.82 | 5.41 | 0.35 | 0.08 | 93.06 | 8.12 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 24 | 2105 | 116 | | | SW4 | SW3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 4 | | 21.2 | 21.0 | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.75 | 34.27 | 5.01 | 0.06 | 0.05 | 57.43 | 8.20 |
| 10 | 21.54 | 34.28 | 5.75 | 0.04 | 0.04 | 44.35 | 8.31 |
| 20 | 18.50 | 34.51 | 5.82 | 0.08 | 0.02 | 95.24 | 8.30 |
| 30 | 16.83 | 34.96 | 5.49 | 0.15 | 0.08 | 74.88 | 7.95 |
| 50 | 14.02 | 34.93 | 4.39 | 0.24 | 0.07 | 65.43 | 7.83 |
| 75 | 14.29 | 34.94 | 6.13 | 0.28 | 0.02 | 64.70 | 7.82 |
| 110 | 13.71 | 34.87 | 4.70 | 0.41 | 0.20 | 63.90 | 7.87 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 24 | 2230 | 70 | | | S 3 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 3 | | 18.8 | 18.4 | St | 10 | C |

OBSERVED

| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.81 | 34.43 | 4.92 | 0.21 | 0.08 | 64.70 | 7.98 |
| 10 | 15.04 | 34.21 | 4.83 | 0.36 | 0.08 | 66.16 | 7.80 |
| 20 | 14.06 | 34.73 | 5.12 | 0.43 | 0.04 | 73.43 | 7.71 |
| 30 | 14.06 | 34.76 | 5.02 | 0.35 | 0.10 | 62.52 | 7.72 |
| 50 | 10.67 | 34.76 | 5.44 | 0.62 | 0.08 | 74.88 | 7.65 |
| 65 | 9.31 | 34.71 | --- | 1.02 | 0.16 | 65.79 | 7.64 |

10월 ( October ) 백두산 ( Baek Du San )

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 29 | 0655 | 118 | | | NW 4 | NW 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 4 | 1019.1 | 19.0 | | Sc | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.61 | 34.33 | 5.26 | — | — | — | 8.60 |
| 10 | 21.70 | 34.35 | 4.10 | 0.14 | — | 4.36 | 8.32 |
| 20 | 21.38 | 34.35 | 5.05 | 0.17 | — | 0 | 8.56 |
| 30 | 21.68 | 34.38 | 5.18 | 0.21 | — | 0 | 8.47 |
| 50 | 21.79 | 34.34 | 5.24 | 0.14 | — | 3.64 | 8.48 |
| 75 | 21.69 | 34.35 | 5.13 | 0.21 | — | 2.91 | 8.38 |
| 100 | 17.64 | 34.27 | 5.18 | 0.66 | — | 5.09 | 8.26 |
| 115 | 17.64 | 34.28 | 4.12 | 0.54 | — | 13.09 | 8.15 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 29 | 0315 | 126 | 3 | 17 | NW 4 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 4 | 1019.3 | 19.4 | | Sc | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.38 | 34.27 | 5.07 | 0.10 | — | 31.26 | 7.02 |
| 10 | 20.89 | 34.31 | 5.06 | 0.10 | — | 3.64 | 8.23 |
| 20 | 20.41 | 34.28 | 5.07 | 0.20 | — | 0 | 8.35 |
| 30 | 20.40 | 34.28 | 5.16 | 0.22 | — | 6.54 | 8.24 |
| 50 | 21.41 | 34.28 | 5.24 | 0.07 | — | 22.54 | 8.24 |
| 75 | 21.21 | 34.32 | 3.83 | 0.28 | — | 2.18 | 8.43 |
| 100 | 17.68 | 34.26 | 4.54 | 0.49 | — | 21.81 | 8.22 |
| 120 | 17.28 | 34.32 | 4.21 | 0.64 | — | 12.36 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 29 | 1000 | 128 | 3 | 17 | NW 4 | NW 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 4 | 1019.6 | 20.4 | | Sc | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.19 | 34.05 | 5.41 | 0.24 | — | 34.17 | 8.53 |
| 10 | 21.20 | 34.05 | 5.28 | 0.20 | — | 36.35 | 8.55 |
| 20 | 21.21 | 34.07 | 5.26 | 0.15 | — | 15.27 | 8.53 |
| 30 | 21.33 | 34.17 | 5.38 | 0.11 | — | 14.54 | 8.53 |
| 50 | 21.65 | 34.22 | 5.46 | 0.28 | — | 14.54 | 8.53 |
| 75 | 21.51 | 34.27 | 6.49 | 0.24 | — | 23.99 | 8.32 |
| 100 | 17.78 | 34.32 | — | 0.59 | — | 18.90 | 8.35 |
| 125 | 17.31 | 34.32 | — | 0.49 | — | 13.81 | 8.43 |

| St No. | Date | Time | Depth | Water Color. | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 29 | 1100 | 126 | 3 | 18 | NW 4 | NW 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 4 | 1018.5 | 19.2 | | Ac | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.54 | 34.21 | 5.18 | 0.18 | — | 23.26 | 8.52 |
| 10 | 21.53 | 34.22 | 5.28 | 0.17 | — | 23.44 | 8.56 |
| 20 | 21.54 | 34.23 | 5.26 | 0.11 | — | 2.18 | 8.53 |
| 30 | 21.55 | 34.23 | 5.16 | 0.11 | — | 0 | 8.45 |
| 50 | 21.58 | 34.28 | 5.73 | 0.17 | — | 26.17 | 8.57 |
| 75 | 17.93 | 34.23 | 4.74 | 0.12 | — | 26.89 | 8.35 |
| 100 | 17.43 | 34.27 | 3.88 | 0.39 | — | 18.18 | — |
| 120 | 17.08 | 34.29 | 3.92 | 0.32 | — | 21.81 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 29 | 1230 | 124 | 3 | 18 | NW 4 | NW 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 4 | 1018.1 | 18.8 | | Ac | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-gt/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.82 | 34.42 | 5.34 | 0.18 | — | 8.00 | 8.38 |
| 10 | 21.80 | 34.44 | 5.36 | 0.14 | — | 1.45 | 8.38 |
| 20 | 21.79 | 34.45 | 5.20 | 0.14 | — | 27.63 | 8.38 |
| 30 | 21.80 | 34.44 | 5.57 | 0 | — | 7.27 | 7.96 |
| 50 | 21.77 | 34.44 | 5.26 | 0.04 | — | 7.27 | 8.32 |
| 75 | 21.74 | 34.44 | 5.28 | 0.06 | — | 8.72 | 8.48 |
| 100 | 16.78 | 34.32 | 3.92 | 0.28 | — | 23.26 | — |
| 120 | 16.69 | 34.32 | 4.02 | 0.59 | — | 29.81 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 29 | 1345 | 128 | 3 | 16 | NW 4 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 4 | 1018.0 | 19.1 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.44 | 34.37 | 5.46 | 0.15 | — | 10.18 | 8.43 |
| 10 | 21.12 | 34.39 | 5.46 | 0.14 | — | 5.09 | 8.27 |
| 20 | 21.36 | 34.33 | 5.65 | 0.11 | — | 6.54 | — |
| 30 | 21.35 | 34.32 | 5.57 | 0.10 | — | 9.45 | 8.50 |
| 50 | 21.28 | 34.33 | 5.57 | 0.07 | — | 8.00 | 8.45 |
| 75 | 16.86 | 34.77 | 4.74 | 0.50 | — | 28.35 | 8.45 |
| 100 | 15.67 | 34.33 | 4.54 | 0.38 | — | 8.00 | 8.38 |
| 125 | 11.89 | 34.28 | 5.13 | 0.25 | — | 18.18 | 8.15 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 29 | 1500 | 148 | 4 | 16 | NW 4 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 4 | 1017.9 | 19.3 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.40 | 34.05 | 5.57 | 0 | — | 4.36 | 8.49 |
| 10 | 20.79 | 34.01 | 5.88 | 0.14 | — | 6.54 | 8.46 |
| 20 | 20.73 | 34.00 | 5.46 | 0.11 | — | 6.54 | 8.50 |
| 30 | 20.71 | 33.99 | 5.46 | 0.10 | — | 10.18 | 8.55 |
| 50 | 20.11 | 33.95 | 5.16 | 0.24 | — | 1.45 | 8.48 |
| 75 | 16.14 | 33.83 | 4.43 | 0.42 | — | 9.45 | 8.30 |
| 100 | 15.71 | 34.25 | 4.02 | 0.60 | — | 10.91 | 8.32 |
| 125 | 15.53 | — | — | 0.66 | — | 21.08 | 8.28 |
| 145 | 13.03 | 34.43 | 3.92 | — | — | 21.08 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 29 | 1630 | 140 | 4 | 12 | NW 3 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1017.5 | 20.1 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.60 | 34.44 | 5.48 | — | 13.81 | 8.45 | |
| 10 | 21.31 | 34.29 | 5.36 | — | 5.09 | 8.52 | |
| 20 | 21.31 | 34.28 | 5.46 | — | 2.18 | 8.23 | |
| 30 | 21.29 | 34.29 | 5.28 | — | 10.18 | 8.40 | |
| 50 | 20.93 | 34.21 | 5.26 | — | 9.45 | 8.49 | |
| 75 | 19.14 | 34.00 | 5.16 | — | 9.45 | 8.12 | |
| 100 | 15.78 | 34.37 | 3.94 | — | 19.63 | 8.15 | |
| 125 | 15.53 | 34.38 | 4.00 | — | 16.72 | 8.16 | |
| 135 | 15.49 | 34.40 | 3.76 | — | 28.35 | 8.15 | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 29 | 1855 | 114 | | | NW 3 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1017.9 | 19.0 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.30 | 34.38 | 5.38 | 0.11 | — | 9.45 | 8.38 |
| 10 | 21.27 | 34.30 | 5.67 | 0.03 | — | 7.27 | 8.25 |
| 20 | 21.18 | 34.28 | 5.26 | 0.06 | — | 8.00 | 8.50 |
| 30 | 20.71 | 34.14 | 5.26 | 0.11 | — | 8.00 | 8.45 |
| 50 | 20.29 | 34.08 | 5.36 | 0.14 | — | 7.27 | 8.30 |
| 75 | 16.63 | 34.25 | 4.08 | 0.60 | — | 13.09 | — |
| 100 | 15.01 | 34.29 | 4.02 | 0.60 | — | 18.18 | 8.20 |
| 110 | 13.85 | 34.30 | 4.23 | 0.59 | — | 18.18 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 29 | 1855 | 68 | | | NW 3 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1018.0 | | | Ci | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.30 | 33.69 | 5.46 | 0.13 | — | 7.27 | 8.33 |
| 10 | 19.35 | 33.55 | 5.46 | 0.20 | — | 5.82 | 8.20 |
| 20 | 19.38 | 33.55 | 5.51 | 0.13 | — | 4.36 | 8.35 |
| 30 | 19.39 | 33.61 | 5.46 | 0.13 | — | 4.36 | 8.46 |
| 60 | 16.34 | 34.11 | 4.43 | 0.50 | — | 15.27 | 8.30 |

11월 (November) 백두산 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 11 | 1040 | 103 | 5 | 12 | E 3 | E 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 4 | 1022.0 | 17.0 | | Sc | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.97 | 34.35 | 5.26 | 0.07 | 0 | 11.63 | 8.35 |
| 10 | 20.97 | 34.36 | 6.29 | 0.06 | 0 | 8.00 | 8.46 |
| 20 | 20.93 | 34.33 | 5.46 | 0.07 | 0.02 | 13.81 | 8.35 |
| 30 | 20.95 | 34.35 | 5.16 | 0.07 | 0.33 | 7.27 | 8.50 |
| 50 | 20.96 | — | — | — | — | — | — |
| 75 | 20.96 | 34.37 | 5.26 | — | — | — | 8.49 |
| 100 | 20.93 | 34.37 | 5.34 | 0.07 | 0 | 10.91 | 8.54 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 11 | 1200 | 122 | 4 | 19 | N 1 | N 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1021.0 | 16.7 | | Cu | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.20 | 34.28 | 5.44 | 0.28 | 0.24 | 13.81 | 7.80 |
| 10 | 20.92 | 34.37 | 5.88 | 0 | 0 | 15.99 | 8.10 |
| 20 | 20.95 | 34.37 | 5.57 | 0.03 | 0 | 15.27 | 7.98 |
| 30 | 20.94 | 34.35 | 5.34 | 0.03 | 0 | 10.91 | 8.15 |
| 50 | 20.95 | 34.39 | 5.26 | 0.03 | 0 | 8.72 | 8.15 |
| 75 | 20.92 | 34.36 | 5.24 | 0.01 | 0 | 8.72 | 8.18 |
| 100 | 20.88 | 34.33 | 5.30 | 0.04 | 0 | 13.09 | 8.13 |
| 115 | 19.19 | 34.29 | 4.64 | 0.07 | — | 21.81 | 8.02 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 11 | 1325 | 126 | 4 | 18 | NE 1 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1019.0 | 17.0 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg/at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.30 | 34.45 | 5.57 | 0.11 | 0.08 | 16.72 | — |
| [illegible] | 20.96 | 34.03 | 5.28 | 0.07 | 0 | 12.36 | 8.12 |
| 20 | 20.88 | 34.34 | 5.67 | 0.06 | 0 | 17.45 | 8.25 |
| 30 | 20.85 | 34.33 | 5.28 | 0.07 | 0 | 13.81 | 8.20 |
| 50 | 20.80 | 34.31 | 5.25 | 0.10 | 0 | 13.09 | 8.22 |
| 75 | 20.72 | 34.31 | 5.13 | 0.04 | 0 | 8.00 | 7.92 |
| 100 | 20.05 | 34.34 | 4.44 | 0.10 | 0 | 18.90 | 8.15 |
| 120 | 18.74 | 34.32 | 3.97 | 0.36 | 0 | 31.99 | 8.12 |

| St No | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 0′ | 11 | 1435 | 126 | 4 | 18 | NE 1 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1019.0 | 17.0 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.30 | 34.44 | 5.36 | 0.11 | 0.19 | 8.72 | 8.15 |
| 10 | 20.95 | 34.36 | 5.31 | 0.13 | 0 | 17.45 | 8.22 |
| 20 | 20.95 | 34.35 | 5.26 | 0.10 | 0 | 7.27 | 8.30 |
| 30 | 21.00 | 34.35 | 5.13 | 0.08 | 0 | 10.18 | 8.27 |
| 50 | 20.90 | 34.35 | 5.05 | 0.17 | 0 | 15.27 | 8.28 |
| 75 | 20.37 | — | 4.51 | 0.14 | 0 | 13.81 | 8.25 |
| 100 | 19.42 | — | 4.12 | 0.25 | 0 | 20.36 | 8.18 |
| 120 | 17.61 | — | 4.03 | 0.24 | 0 | 24.72 | 8.03 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 11 | 1550 | 118 | 4 | 18 | NW 2 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1016.0 | 15.8 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.30 | 34.43 | — | 0.11 | 0 | 12.36 | 8.20 |
| 10 | 20.96 | — | 5.31 | 0.14 | 0 | 17.45 | 8.32 |
| 20 | 20.99 | 34.38 | 4.95 | 0.13 | 0 | 47.26 | 8.25 |
| 30 | 20.99 | 34.41 | 4.96 | 0.10 | 0 | 92.33 | 8.10 |
| 50 | 20.96 | 34.42 | 5.28 | 0.10 | 0 | 10.18 | 8.28 |
| 75 | 20.91 | 34.40 | 5.11 | 0.10 | 0 | 13.09 | 8.30 |
| 100 | 19.41 | 34.33 | 4.33 | 0.04 | 0 | 31.99 | 8.18 |
| 115 | 17.95 | 34.29 | 3.87 | 0.10 | 0 | 31.26 | 8.13 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 11 | 1725 | 122 | | | NW 2 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1016.0 | 16.2 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.00 | 34.40 | 5.17 | 0.04 | 0 | 13.81 | 8.18 |
| 10 | 20.66 | 34.38 | 5.16 | 0.01 | 0 | 20.36 | 8.28 |
| 20 | 20.68 | 34.39 | 5.32 | 0.01 | 0 | 13.09 | 8.25 |
| 30 | 20.66 | 34.38 | 5.26 | 0.07 | — | 21.08 | 8.33 |
| 50 | 20.44 | 34.32 | 6.60 | 0.10 | — | 13.09 | 8.26 |
| 75 | 19.96 | 34.19 | 5.21 | 0.08 | — | 45.80 | 8.32 |
| 100 | 19.87 | 34.21 | 5.26 | 0.14 | — | 28.35 | 8.36 |
| 118 | 16.42 | 34.24 | 4.12 | 0.22 | — | 37.80 | 8.33 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 11 | 1840 | 155 | | | NE 3 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | 1016.0 | 14.5 | | Ns | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.47 | 34.34 | 5.26 | 0.10 | — | 23.26 | 8.32 |
| 10 | 20.43 | 34.36 | 5.16 | 0.10 | — | 8.72 | 8.31 |
| 20 | 20.51 | 34.35 | 5.21 | 0.07 | — | 10.18 | 8.37 |
| 30 | 20.47 | 34.34 | 5.36 | 0.07 | — | 27.63 | — |
| 50 | 20.46 | 34.39 | 5.48 | 0.28 | — | 31.26 | 8.32 |
| 75 | 20.51 | 34.37 | 5.46 | 0.14 | — | 23.26 | 8.35 |
| 100 | 16.70 | 34.20 | 4.23 | 0.17 | — | 21.81 | 8.22 |
| 125 | 16.04 | 34.21 | 4.23 | 0.03 | — | 26.89 | 8.07 |
| 150 | 9.33 | 34.23 | 4.85 | 0.14 | — | 26.89 | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 11 | 2030 | 140 | | | NE 2 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1019.0 | 13.6 | | Ns | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.52 | 33.55 | 5.67 | 0.14 | — | 9.45 | 8.25 |
| 10 | 18.55 | 33.56 | 5.67 | 0.10 | — | 12.36 | 8.15 |
| 20 | 18.52 | 33.56 | 5.55 | 0.14 | — | 21.08 | 8.18 |
| 30 | 18.51 | 33.56 | 5.57 | 0.17 | — | 9.45 | 8.35 |
| 50 | 18.72 | 33.59 | 5.67 | 0.04 | — | 22.54 | 8.32 |
| 75 | 18.19 | 33.86 | 4.64 | 0.14 | — | 19.63 | 8.29 |
| 100 | 14.21 | 34.17 | 4.23 | 0.10 | — | 36.35 | 8.17 |
| 125 | 13.73 | 34.22 | 4.21 | 0.10 | — | 41.90 | 8.17 |
| 150 | [illegible] | [illegible] | 4.43 | 1.22 | — | [illegible] | [illegible] |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 11 | 2200 | 110 | | | NE 3 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1018.0 | 13.2 | | Ns | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.50 | 33.43 | 5.57 | 0.04 | — | 17.45 | 8.24 |
| 10 | 17.89 | 33.42 | 5.67 | 0.03 | — | 14.54 | — |
| 20 | 17.87 | 33.37 | — | 0.10 | — | 22.54 | 8.30 |
| 30 | 17.91 | 33.36 | 5.79 | 0.07 | — | 21.80 | 8.35 |
| 50 | 17.02 | 33.44 | 5.18 | 0.10 | — | 22.54 | 8.25 |
| 75 | 16.02 | 34.14 | 6.12 | 0.04 | — | 35.62 | 8.20 |
| 100 | 14.27 | 34.28 | 3.92 | 0.03 | — | 43.62 | 8.15 |
| 105 | 12.45 | 34.25 | 4.45 | 0.29 | — | 61.80 | 8.13 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 11 | 2315 | 66 | | | E 3 | E 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 4 | 1016.0 | 11.3 | | Ns | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.53 | 33.74 | 5.67 | 0.10 | — | 21.81 | 8.32 |
| 10 | 17.38 | 33.79 | 5.46 | 0.17 | — | 29.08 | 8.25 |
| 20 | 16.94 | 33.84 | 5.35 | 0.28 | — | 34.17 | 8.40 |
| 30 | 15.71 | 33.99 | 4.97 | 0.10 | — | 44.35 | 8.35 |
| 50 | 14.25 | 34.23 | 3.92 | 0.29 | — | 45.07 | 8.18 |
| 60 | 10.59 | 34.25 | 4.62 | 0.48 | — | 53.07 | 8.16 |

# 208선 해 양 관 측 성 적

## Oceanographic Data Line 208

| Month | | 1 월 (68년) 백 두 산 호 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Station. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| Day | | 18 | 18 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| Item | Time / Z(m) | 1340 | 2155 | 0848 | 1026 | 1140 | 1303 | 1416 | 1525 | 1635 | 1800 |
| T ℃ | 0 | 13.17 | 14.46 | 13.80 | 13.20 | 13.30 | 13.18 | 14.35 | 13.88 | 13.89 | 13.49 |
| | 10 | 13.15 | 14.59 | 13.40 | 13.69 | 12.33 | 12.26 | 14.38 | 13.98 | 14.04 | 13.49 |
| | 20 | 12.85 | 14.69 | 13.72 | 13.67 | 13.39 | 13.62 | 14.44 | 13.99 | 14.02 | 13.49 |
| | 30 | 12.69 | 14.70 | 13.72 | 13.69 | 13.54 | 13.58 | 14.49 | 14.00 | 14.06 | 13.49 |
| | 50 | 12.54 | 14.71 | 13.77 | 13.53 | 13.59 | 13.68 | 14.54 | 14.00 | 14.05 | 13.49 |
| | 75 | — | 14.60 | 13.10 | 13.39 | 13.56 | 13.69 | 14.50 | 13.98 | 13.91 | 13.51 |
| | 100 | — | 10.53 | 12.97 | 13.10 | — | — | — | — | 13.80 | — |
| | Botm | 12.13 | 9.85 | 12.98 | 13.02 | 13.58 | 13.32 | 14.50 | 13.85 | 13.70 | 13.51 |
| S ‰ | 0 | | | | | | | | | | |
| | 10 | | | | | | | | | | |
| | 20 | | | | | | | | | | |
| | 30 | | | | | | | | | | |
| | 50 | | | | | | | | | | |
| | 75 | | | | | | | | | | |
| | 100 | | | | | | | | | | |
| | Botm | | | | | | | | | | |
| Depth(m) | | 60 | 130 | 130 | 140 | 125 | 125 | 118 | 115 | 113 | 110 |
| Water Trans. (m) | | 6 | — | 13 | 14 | 12 | 14 | 15 | 11 | 12 | — |
| Water Color | | 5 | — | 5 | 5 | 5 | 5 | 5 | 5 | 5 | — |
| Wave | | NNW2 | NNW4 | NW4 | NW4 | NW4 | NW4 | NW4 | NW4 | NW4 | NW1 |
| Swell | | NNW1 | NNW2 | NW3 | NW3 | NW2 | NW2 | NW2 | NW2 | NW2 | NW2 |
| Air Temp(°C) | | 4.6 | 3.4 | 2.0 | 3.2 | 4.9 | 5.3 | 5.9 | 5.0 | 3.2 | 2.9 |
| Baro. (mb) | | 1025.2 | 1026.5 | 1021.9 | 1022.2 | 1021.2 | 1020.7 | 1020.9 | 1021.3 | 1021.3 | 1022.1 |
| Wind | | NNW9 | NNW1 | NW13 | NW13 | NW10 | NW8 | NW9 | NW9 | NW10 | NW11 |
| Cloud | | Ci | Ci | As1 | As4 | As6 | As8 | As8 | As8 | As8 | As7 |
| Weather | | B | B | B | BC | BC | C | C | C | C | BC |

# 209선 해 양 관 측 성 적

## Oceanographic Data Line 209

| Month | | 11월 백두산 | 68 년 1월( 백 두 산) | | | |
|---|---|---|---|---|---|---|
| St. No. | | 11 | 04 | 05 | 07 | 09 |
| Day | | 4 | 13 | 14 | 14 | 14 |
| Item | Time / Z (m) | 1700 | 0920 | 0755 | 1030 | 1330 |
| T ℃ | 0 | 21.05 | 12.53 | 14.15 | 13.00 | 11.37 |
| | 10 | 21.19 | 12.52 | 14.14 | 13.02 | 11.18 |
| | 20 | 21.11 | 12.37 | 14.17 | 13.07 | 11.36 |
| | 30 | 21.18 | 11.86 | 14.13 | 13.01 | 11.33 |
| | 50 | 21.18 | 10.44 | 14.28 | 13.10 | 11.15 |
| | 75 | 21.17 | — | 12.59 | 12.97 | 11.04 |
| | 100 | 18.15 | — | 4.29 | 13.06 | 10.93 |
| | 125 | — | — | 1.90 | 12.36 | 10.27 |
| | 150 | — | — | — | 10.87 | — |
| | 200 | — | — | — | 2.33 | — |
| | 250 | — | — | — | 1.11 | — |
| | 300 | — | — | — | 1.03 | — |
| | Botm | — | — | — | — | 11.09 |
| S ‰ | 0 | 34.19 | | | | |
| | 10 | 34.25 | | | | |
| | 20 | 34.25 | | | | |
| | 30 | 34.29 | | | | |
| | 50 | 34.32 | | | | |
| | 75 | 34.73 | | | | |
| | 100 | | | | | |
| | 125 | 34.32 | | | | |
| | 150 | | | | | |
| | 200 | | | | | |
| | 250 | — | | | | |
| | 300 | | | | | |
| | Botm | | | | | |
| Depth(m) | | 120 | 55 | 130 | 300 | 180 |
| Water Trans(m) | | — | 9 | 13 | 18 | 18 |
| Water Color | | — | 7 | 5 | 3 | 3 |
| Wave | | NE1 | NNW3 | N3 | NW4 | NNW4 |
| Swell | | NE1 | NNW1 | N1 | NW2 | NNW2 |
| Air Temp(°C) | | — | 9.1 | 1.2 | 3.0 | 3.6 |
| Baro. (mb) | | 1020.6 | 1004.3 | 1013.2 | 1013.1 | 1008.8 |
| Wind | | NE1 | NNW11 | N13 | NW11 | NNW13 |
| Cloud | | As10 | Sc4 | As16 | Ac5 | Ac7 |
| Weather | | C | Bc | Bc | Bc | Bc |

# 209선 해 양 관 측 성 적

## Oceanographic Data Line 209

4월 (April) 척양호 (Chuck Yang Ho)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 24 | 1640 | 46 | 5 . | 6 | S 3 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1000.1 | 16.5 | 15.0 | Cs | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.20 | 34.22 | 6.80 | 0.08 | 0.10 | 23.26 | 8.15 |
| 10 | 14.03 | 34.52 | 6.82 | 0.10 | 0.06 | 19.63 | 8.27 |
| 20 | 14.19 | 34.53 | 6.50 | 0.10 | — | — | 8.30 |
| 30 | 13.97 | 34.55 | 6.34 | 0.21 | — | 21.81 | 8.25 |
| 40 | 13.04 | 34.53 | 5.57 | 0.22 | — | 26.89 | 8.23 |

| St No. | Date | Time | Depth | Water Color. | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 24 | 1735 | 100 | 5 | 6 | SE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1000.3 | 20.1 | 15.6 | Sc | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.90 | 34.56 | 6.71 | 0.08 | 0.07 | 13.09 | 8.29 |
| 10 | 15.27 | 34.57 | 6.52 | 0.14 | 0.09 | 20.36 | 8.30 |
| 20 | 15.40 | 34.58 | 6.61 | 0.14 | 0.07 | 21.81 | 8.28 |
| 30 | 14.98 | 34.56 | 6.50 | 0.15 | 0.13 | 23.26 | 8.29 |
| 50 | 14.08 | 34.58 | 6.12 | 0.17 | 0.12 | 26.17 | 8.18 |
| 75 | 11.36 | 34.38 | 5.85 | 0.21 | 0.14 | 29.81 | 8.10 |
| 95 | 7.62 | 34.29 | 5.04 | 0.22 | 0.15 | 41.44 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 24 | 1905 | 230 | 5 | | S 3 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1000.7 | 14.6 | 14.1 | Sc | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.00 | 34.65 | 6.17 | 0.10 | 0.06 | 14.54 | 8.20 |
| 10 | 15.48 | 34.66 | 5.95 | 0.10 | 0.04 | 15.99 | 8.25 |
| 20 | 14.67 | 34.63 | 5.72 | 0.08 | 0.08 | 21.08 | 8.29 |
| 30 | 14.47 | 34.61 | 5.69 | 0.08 | 0.10 | 23.26 | 8.34 |
| 50 | 14.38 | 34.64 | 5.85 | 0.10 | 0.10 | 29.08 | 8.35 |
| 75 | 14.04 | 34.61 | 5.75 | 0.10 | 0.11 | 29.81 | 8.30 |
| 100 | 10.88 | 34.46 | — | 0.10 | 0.15 | 32.72 | 8.22 |
| 125 | 2.56 | 34.14 | 5.63 | 0.27 | 0.02 | 36.35 | 8.20 |
| 150 | 1.30 | 34.09 | 5.63 | 0.27 | 0.04 | 41.44 | 8.24 |
| 200 | 0.61 | 34.08 | 5.63 | 0.29 | 0.08 | 53.80 | 8.21 |
| 225 | 0.55 | 34.07 | 5.59 | 0.32 | 0.04 | 58.16 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 24 | 2035 | 252 | | | S 3 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1000.1 | 14.2 | 13.8 | Cs | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.10 | 34.36 | 6.29 | 0.11 | 0.02 | 21.08 | 8.12 |
| 10 | 15.16 | 34.63 | 5.96 | 0.13 | 0.04 | 23.26 | 8.15 |
| 20 | 14.82 | 34.62 | 5.85 | 0.14 | 0.01 | 24.72 | 7.80 |
| 30 | 14.46 | 34.60 | 5.86 | 0.15 | 0.02 | 25.45 | 7.83 |
| 50 | 14.19 | 34.62 | 5.81 | 0.17 | 0.03 | 27.63 | 7.83 |
| 75 | 14.00 | 34.60 | 5.96 | 0.17 | 0.02 | 29.08 | 8.00 |
| 100 | 13.17 | 34.55 | 5.91 | 0.20 | 0.03 | 32.72 | 7.99 |
| 125 | 11.54 | 34.41 | 5.76 | 0.21 | 0.06 | 36.35 | 8.02 |
| 150 | 1.86 | 34.12 | 5.76 | 0.24 | 0.10 | — | 7.63 |
| 200 | 0.77 | 34.07 | 5.63 | 0.39 | 0.10 | 51.62 | 7.68 |
| 250 | 0.43 | 34.08 | 5.55 | 0.36 | 0.07 | 50.89 | 7.67 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 24 | 2255 | 212 | | | S 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1000.0 | 13.2 | 12.8 | Sc | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | SiOa-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.50 | 34.83 | 6.17 | 0.17 | 0.12 | 23.26 | 8.05 |
| 10 | 14.39 | 34.61 | 6.17 | 0.15 | 0.08 | 23.99 | 8.10 |
| 20 | 14.38 | 34.60 | 5.98 | 0.13 | 0.09 | 23.26 | 8.12 |
| 30 | 14.15 | 34.59 | 6.04 | 0.11 | 0.07 | 23.99 | 8.13 |
| 50 | 14.51 | 34.66 | 5.94 | 0.10 | 0.06 | 25.45 | 8.13 |
| 73 | — | 34.59 | 5.96 | 0.15 | 0.07 | 29.08 | 8.12 |
| 100 | 13.31 | 34.56 | 5.95 | 0.22 | — | 30.53 | 8.10 |
| 125 | 13.00 | 34.43 | 5.90 | 0.28 | 0.08 | 39.26 | 8.65 |
| 150 | 11.27 | 34.10 | 5.73 | 0.27 | 0.09 | 46.53 | 7.85 |
| 200 | 1.17 | 34.06 | 5.74 | 0.38 | 0.17 | 77.06 | 7.88 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 25 | | 200 | | | S 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1000.3 | 13.4 | 13.0 | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ %L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.30 | 34.06 | 6.51 | 0.08 | 0 | 10.91 | 8.14 |
| 10 | 14.19 | 34.60 | 6.28 | 0.07 | 0.04 | 14.54 | 8.15 |
| 20 | 14.15 | 34.60 | 6.19 | 0.20 | 0.06 | 15.27 | 8.13 |
| 30 | 14.06 | 34.60 | 6.22 | 0.15 | 0.04 | 17.45 | 8.12 |
| 50 | 13.73 | 34.57 | 6.09 | 0.18 | 0.05 | 18.18 | 8.09 |
| 75 | 13.64 | 34.56 | 6.07 | 0.13 | 0.04 | 20.36 | 8.10 |
| 100 | 13.23 | 34.56 | 6.03 | 0.10 | 0.08 | 21.81 | 8.12 |
| 125 | 11.57 | 34.51 | 5.95 | 0.15 | 0.08 | 24.72 | 8.10 |
| 150 | 10.96 | 34.44 | 5.83 | 0.18 | 0.06 | 26.17 | — |
| 195 | 1.43 | 34.11 | 5.52 | 0.21 | 0.04 | 45.80 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 25 | 0255 | 148 | | | S 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1000.1 | 13.9 | 13.2 | Sc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.50 | 34.60 | 6.55 | 0.07 | 0.04 | 11.63 | 8.00 |
| 10 | 14.85 | 34.59 | 6.32 | 0.08 | 0.07 | 13.09 | 8.10 |
| 20 | 14.52 | 34.66 | 6.07 | 0.10 | 0.09 | 19.63 | 8.11 |
| 30 | 14.28 | 34.65 | 5.89 | 0.17 | 0.09 | 28.35 | 8.13 |
| 50 | 14.16 | — | 5.78 | 0.15 | — | — | 8.10 |
| 75 | 13.98 | 34.68 | 5.79 | 0.17 | 0.12 | 18.90 | 8.07 |
| 100 | 13.96 | 34.63 | 5.85 | 0.15 | 0.15 | 13.09 | 8.10 |
| 125 | 12.10 | 34.65 | 5.58 | 0.36 | 0.18 | 13.09 | 8.12 |
| 140 | 11.02 | 34.54 | 5.52 | 0.71 | 0.20 | 18.18 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 25 | 0425 | 133 | | | S 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1000.1 | 13.6 | 12.7 | Sc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.50 | 34.57 | 6.49 | 0.07 | 0.01 | 10.91 | — |
| 10 | 14.76 | 34.59 | 6.61 | 0.08 | 0.10 | 11.63 | 8.15 |
| 20 | 14.15 | 34.59 | 6.39 | 0.11 | 0.08 | 13.09 | 8.15 |
| 30 | 14.13 | — | 6.28 | 0.15 | 0.08 | 14.54 | 8.12 |
| 50 | 13.94 | 34.57 | 6.08 | 0.15 | 0.10 | 15.99 | 8.11 |
| 75 | 13.57 | 34.57 | 5.95 | 0.24 | 0.08 | 18.18 | 8.15 |
| 100 | 13.33 | 34.57 | 5.85 | 0.31 | 0.10 | 22.54 | 8.12 |
| 125 | 12.48 | 34.54 | 5.84 | 0.45 | 0.09 | 23.99 | 8.01 |
| 135 | 11.00 | — | 5.74 | 0.62 | 0.08 | 25.45 | 8.05 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 25 | 0610 | 134 | 4 | 11 | NE 1 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | rce | | Dry | Weto | Type | Amount | |
| NE | 1 | 1000.3 | 13.6 | 13.0 | Sc | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4\mu$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.00 | 34.65 | 5.95 | 0.14 | 0 | 10.91 | 8.05 |
| 10 | 15.11 | 34.68 | 6.01 | 0.13 | 0 | 12.36 | 8.08 |
| 20 | 15.08 | 34.67 | 6.07 | 0.07 | 0.01 | 12.36 | 8.12 |
| 30 | 14.83 | 34.61 | 5.97 | 0.13 | 0 | 15.27 | 8.13 |
| 50 | 14.72 | 34.69 | 5.89 | 0.14 | 0.01 | 18.18 | 8.13 |
| 75 | 14.71 | 34.69 | 5.74 | — | — | — | 8.10 |
| 100 | 14.62 | 34.71 | 5.55 | 0.13 | 0 | 18.90 | 8.08 |
| 125 | 14.63 | 34.65 | 5.52 | 0.15 | 0.03 | 24.72 | 8.06 |
| 130 | 11.52 | 34.46 | 5.60 | 0.18 | 0.02 | 29.08 | 8.05 |

6월 (June) 지리산 (Chi Ri San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 23 | 0830 | 60 | 4 | 16 | S 1 | S o |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | | 26.8 | 26.3 | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4\mu$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.53 | 34.20 | 5.50 | 0.22 | 0.08 | 36.35 | 8.00 |
| 10 | 17.77 | 34.39 | 5.63 | 0.22 | 0.12 | 44.35 | 7.90 |
| 20 | 16.21 | 34.53 | 5.40 | 0.24 | 0.10 | 47.98 | 7.65 |
| 30 | 13.86 | 34.68 | 4.90 | 0.56 | 0.12 | 55.98 | 7.78 |
| 50 | 9.36 | 34.69 | 5.05 | 0.71 | 0.09 | 65.43 | 7.60 |
| 55 | 8.44 | 34.63 | — | 0.83 | 0.19 | 36.35 | 7.56 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 23 | 1025 | 130 | 4 | 16 | SSW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 1 | | 26.8 | 25.8 | Cs | 10 | C |

OHSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.22 | 34.32 | 5.20 | — | — | — | 8.20 |
| 10 | 21.94 | 34.32 | 5.48 | 0.11 | — | 42.89 | 8.10 |
| 20 | 15.50 | 34.39 | 5.48 | 0.20 | 0.04 | 42.17 | 7.93 |
| 30 | 14.02 | 34.67 | — | 0.42 | 0.07 | 55.98 | 7.88 |
| 50 | 13.82 | 34.80 | 4.22 | 0.43 | 0.05 | 61.80 | 7.45 |
| 75 | 7.66 | 34.65 | 4.85 | 0.52 | 0.03 | 66.16 | 7.45 |
| 100 | 3.06 | 34.48 | 5.15 | 0.66 | 0.14 | 55.98 | 7.53 |
| 125 | 2.03 | 34.43 | 5.15 | 0.71 | 0.12 | 61.80 | 7.60 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 23 | 1330 | 225 | 3 | 17 | SSE 1 | SSE 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | | 25.6 | 24.5 | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.53 | 34.30 | 5.15 | 0.28 | 0.05 | 27.63 | 7.94 |
| 10 | 22.19 | 34.46 | 5.40 | 0.14 | 0.07 | 33.44 | 8.12 |
| 20 | 18.97 | 34.19 | 4.19 | 0.18 | 0.04 | 39.26 | 8.15 |
| 30 | 15.98 | 34.49 | 6.17 | 0.17 | 0.04 | 50.98 | 8.00 |
| 50 | 14.24 | 34.37 | 5.21 | 0.42 | 0.11 | 61.80 | 7.87 |
| 75 | 14.06 | 34.82 | — | 0.46 | 0.18 | 65.43 | 7.70 |
| 100 | 14.13 | 34.89 | 5.47 | 0.39 | 0.15 | 64.15 | 7.68 |
| 125 | 12.78 | 34.88 | — | 0.49 | 0.09 | 64.70 | 7.75 |
| 150 | 6.75 | 34.60 | 5.10 | 0.49 | 0.15 | 65.43 | 7.78 |
| 200 | 1.48 | 34.49 | 5.69 | 0.71 | 0.14 | 66.16 | 7.65 |
| 220 | 1.31 | 34.43 | 5.87 | 0.34 | 0.10 | 77.06 | 7.58 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 23 | 1750 | 150 | 2 | 22 | S 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SSW | 1 | | 24.6 | 24.0 | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.74 | 34.74 | 5.00 | 0.04 | 0.02 | 38.53 | 7.85 |
| 10 | 19.97 | 34.82 | 5.52 | 0.07 | 0.03 | 36.35 | 7.98 |
| 20 | 15.82 | 34.88 | 5.54 | 0.08 | 0.06 | 37.80 | 7.95 |
| 30 | 15.06 | 34.69 | 5.33 | 0.11 | 0.12 | 45.80 | 8.08 |
| 50 | 14.06 | 34.88 | 5.83 | 0.28 | 0.12 | 56.71 | 7.98 |
| 75 | 12.95 | 34.94 | 5.50 | 0.29 | 0.10 | 50.89 | 7.83 |
| 100 | 11.36 | 34.80 | 5.81 | 0.08 | 0.04 | 52.34 | 7.80 |
| 125 | 7.62 | 34.67 | 5.99 | 0.04 | 0.02 | 44.35 | 7.80 |
| 145 | 7.40 | 34.61 | 6.06 | 0.10 | 0.02 | 43.62 | 7.78 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 23 | 2115 | 136 | | | SW 1 | SW 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | | 23.4 | 22.7 | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.43 | — | 5.21 | 0.10 | 0.03 | 17.45 | 7.95 |
| 10 | 22.07 | 34.75 | — | 0.11 | 0.04 | 21.81 | 8.20 |
| 20 | 20.50 | 34.71 | — | 0.14 | 0.18 | 29.08 | 8.25 |
| 30 | 18.42 | 34.72 | 5.89 | 0.14 | 0.08 | 33.44 | 8.15 |
| 50 | 16.00 | 34.76 | 6.06 | 0.07 | 0.04 | 42.17 | 8.00 |
| 75 | 15.22 | 34.76 | 5.81 | 0.17 | 0.08 | 46.53 | 7.97 |
| 100 | 14.23 | 34.86 | 5.73 | 0.52 | 0.17 | 48.71 | 7.55 |
| 130 | 9.49 | 34.72 | — | 0.70 | — | 40.71 | 7.60 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 24 | 0140 | 124 | | | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | | 22.4 | 22.3 | Cs | 10 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.92 | 34.44 | 5.22 | 0.06 | — | 26.89 | — |
| 10 | 22.23 | 34.42 | 5.21 | 0.03 | 0.13 | 35.62 | 7.62 |
| 20 | 21.44 | 34.42 | 5.42 | 0.08 | 0.11 | 43.62 | 8.29 |
| 30 | 20.44 | 34.59 | 5.73 | 0.06 | 0.14 | 47.98 | 8.65 |
| 50 | 17.53 | 34.70 | 5.98 | 0.04 | 0.09 | 56.71 | 8.05 |
| 75 | 16.52 | 34.96 | 5.44 | 0.14 | 0.20 | 61.80 | 7.79 |
| 100 | 15.30 | 34.90 | 5.57 | 0.06 | 0.22 | 53.80 | 7.90 |
| 125 | 14.90 | 34.94 | 5.10 | 0.21 | 0.16 | 36.35 | 7.95 |

10월 (October) 백두산 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 30 | 0825 | 63 | 6 . | 10 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1018.1 | 21.0 | | Ci | 1 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.30 | 33.52 | 5.68 | 0.06 | — | 3.64 | 8.30 |
| 10 | 19.22 | 33.52 | 5.34 | 0 | — | 6.54 | 8.28 |
| 20 | 19.33 | 33.52 | 5.67 | 0.08 | — | 9.45 | 8.40 |
| 30 | 19.66 | 33.73 | 5.41 | 0.14 | — | 12.36 | 8.24 |
| 50 | 19.59 | 33.91 | 5.16 | 0.21 | — | 5.82 | 8.28 |
| 60 | 8.60 | 34.20 | 4.85 | 0.97 | — | 26.17 | 7.70 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 30 | 0920 | 140 | 5 | 12 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1018.1 | 20.8 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.35 | 33.66 | 5.75 | 0.11 | — | 2.91 | 8.36 |
| 10 | 19.32 | 33.64 | 5.46 | 0.11 | — | 5.82 | 8.40 |
| 20 | 19.39 | 33.67 | 5.36 | 0.08 | — | 7.27 | 8.27 |
| 30 | 19.43 | 33.71 | 5.57 | 0.06 | — | 8.72 | 8.35 |
| 50 | 16.19 | 33.77 | 4.45 | 0.46 | — | 13.81 | 7.79 |
| 75 | 15.05 | 33.35 | 3.81 | 0.71 | — | 21.08 | 7.60 |
| 100 | 7.33 | 34.18 | 5.26 | 0.71 | — | 15.99 | 7.97 |
| 135 | 10.04 | 34.01 | 5.67 | 1.08 | — | 26.89 | 7.86 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 30 | 1200 | 480 | 5 | 15 | S 3 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Diretion | Force | | Dry | Wet | Type | Amount | |
| S | 3 | 1017.0 | 20.0 | | Cs | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.35 | 33.99 | 5.28 | 0.17 | — | 6.54 | 8.23 |
| 10 | 20.31 | 34.00 | 6.29 | 0.10 | — | 8.72 | 8.45 |
| 20 | 20.31 | 34.02 | 5.57 | 0.11 | — | 1.45 | 8.50 |
| 30 | 20.33 | 34.01 | 5.26 | 0.22 | — | 8.00 | 8.49 |
| 50 | 20.10 | 34.02 | 4.43 | 0.18 | — | 2.18 | 8.47 |
| 75 | 15.68 | 34.03 | 4.43 | 0.48 | — | 15.27 | 7.85 |
| 100 | 14.86 | 34.37 | 7.11 | 0.39 | — | 10.18 | 7.95 |
| 125 | 10.73 | 34.39 | 5.88 | 0.56 | — | 10.91 | 7.84 |
| 150 | 7.50 | 34.16 | 7.94 | 0.66 | — | 15.27 | 8.10 |
| 250 | 3.52 | 33.99 | 5.48 | 1.15 | — | 14.54 | 7.55 |
| 300 | 1.48 | 34.01 | 5.26 | 1.16 | — | 40.71 | 7.35 |
| 450 | 0.67 | 33.94 | 5.26 | 1.22 | — | 54.53 | 7.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 30 | 1555 | 190 | 5 | 14 | S 4 | S 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1016.6 | 18.4 | | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.50 | 33.89 | 5.48 | 0 | — | 7.27 | 8.20 |
| 10 | 19.20 | 33.69 | 5.57 | 0 | — | 1.45 | 8.35 |
| 20 | 19.19 | 33.67 | 6.60 | 0 | — | 0 | 8.40 |
| 30 | 19.20 | 33.68 | 5.57 | 0 | — | 2.18 | 8.26 |
| 50 | 19.16 | 33.67 | 5.38 | 0 | — | 2.91 | 8.43 |
| 75 | 15.70 | 34.34 | 4.74 | 0.22 | — | 8.00 | 8.20 |
| 100 | 14.74 | 34.42 | 5.46 | 0.28 | — | 11.63 | 8.18 |
| 125 | 8.56 | 34.25 | 6.21 | 0.38 | — | 16.72 | 7.85 |
| 150 | 3.75 | — | 5.88 | 0.52 | — | 26.09 | 7.63 |
| 185 | 1.98 | 34.03 | 5.69 | 0.57 | — | 22.54 | 7.80 |

11월 (November)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 4 | 1900 | 125 | | | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1020.6 | 16.1 | | As | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.98 | 34.12 | — | — | — | — | 8.21 |
| 10 | 21.00 | 34.12 | — | — | — | — | 8.31 |
| 20 | 21.04 | 34.13 | — | — | — | — | 8.35 |
| 30 | 20.99 | 34.13 | — | — | — | — | 8.25 |
| 50 | 20.98 | 34.15 | — | — | — | — | 8.25 |
| 75 | 20.74 | 34.15 | — | — | — | — | 8.40 |
| 100 | 18.36 | 34.29 | — | — | — | — | 8.42 |
| 120 | 17.82 | — | — | — | — | — | 8.61 |

11월 (November) 백두산 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Water | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 23 | 1020 | 57 | 4 | 20 | N 1 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1028.0 | 14.1 | | Ac | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.89 | 33.36 | 5.88 | 0.03 | — | 7.27 | 8.10 |
| 10 | 15.84 | 33.41 | 5.88 | 0.08 | — | 16.00 | 8.15 |
| 20 | 15.84 | — | 5.88 | 0.03 | — | 10.91 | 8.30 |
| 30 | 15.85 | 33.38 | 5.77 | 0 | — | 16.72 | 7.90 |
| 50 | 15.47 | 33.67 | 5.26 | 0 | — | 6.54 | 8.12 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 23 | 1120 | 144 | 4 | 23 | N 1 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1028.0 | 14.1 | | Ac | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.87 | 33.44 | 5.79 | — | — | — | 8.25 |
| 10 | 15.83 | 33.44 | 5.88 | 0 | — | 6.54 | 8.19 |
| 20 | 15.88 | 33.47 | 5.90 | 0 | — | 8.72 | 8.08 |
| 30 | 15.91 | 33.45 | 5.67 | 0 | — | 7.27 | 8.06 |
| 50 | 15.66 | 33.63 | 5.26 | 0.03 | — | 2.64 | 7.78 |
| 75 | 10.71 | 34.19 | 5.03 | 0.03 | — | 18.90 | 7.85 |
| 100 | 5.24 | 34.07 | 5.51 | 0.01 | — | 15.99 | 8.25 |
| 140 | 0.61 | 34.01 | 5.98 | 0.28 | — | 37.08 | 7.50 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 23 | 1240 | 227 | 4 | 17 | | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1027.0 | 16.3 | | Ac | 7 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at-L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.75 | 33.92 | 5.44 | 0.07 | 5.09 | — | 8.12 |
| 10 | 16.46 | 33.91 | 5.67 | 0.03 | — | 5.09 | 8.25 |
| 20 | 16.60 | 33.94 | 5.88 | 0 | — | 5.09 | 8.38 |
| 30 | 16.56 | 33.93 | 5.65 | 0.03 | — | 6.54 | 7.95 |
| 50 | 16.45 | 33.92 | 5.67 | 0 | — | 1.45 | 8.10 |
| 75 | 14.00 | 34.33 | 4.72 | 0.18 | — | 19.63 | 8.10 |
| 100 | 9.69 | 34.21 | 5.79 | 0.21 | — | 15.99 | 8.06 |
| 125 | 6.46 | 34.13 | 6.41 | 0.14 | — | 13.81 | 7.85 |
| 150 | 2.89 | 34.01 | 6.62 | 0.32 | — | 27.63 | 7.90 |
| 200 | 0.98 | 34.02 | 5.98 | 0.42 | — | 36.35 | 7.83 |
| 225 | 0.48 | 34.06 | 5.67 | 0.04 | — | 51.62 | 7.65 |

| St No. | Date | Time | Depth | Water Coror | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 23 | 1700 | 250 | 3 | 11 | N | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1026.5 | 16.4 | | Ci-Ac | 6 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.20 | 34.00 | 5.77 | 0 | — | 5.82 | 7.94 |
| 10 | 16.53 | 33.92 | 6.08 | 0 | — | 7.27 | 8.15 |
| 20 | 16.60 | 33.93 | 5.75 | 0.07 | — | 5.09 | 8.24 |
| 30 | 16.62 | 33.94 | 5.88 | 0.07 | — | 11.63 | 8.00 |
| 50 | 16.57 | 33.94 | 5.94 | 0 | — | 4.36 | 8.20 |
| 75 | 14.60 | 34.23 | 5.16 | 0.24 | — | 14.54 | 8.10 |
| 100 | 9.36 | 34.20 | 5.46 | 0.60 | — | 19.63 | 8.32 |
| 125 | 5.43 | 34.04 | 6.27 | 0.35 | — | 22.54 | 8.30 |
| 150 | 2.39 | 34.00 | 6.70 | 0.53 | — | 24.72 | 7.78 |
| 200 | 0.90 | 34.02 | 5.57 | 0.63 | — | 24.72 | 7.72 |
| 240 | 10.49 | 34.03 | 5.78 | 0.71 | — | 43.62 | 7.65 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 23 | 2040 | 135 | | | N 1 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1026.9 | 13.5 | | CiAc | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.00 | 33.82 | 5.77 | 0.15 | — | 18.90 | — |
| 10 | 17.21 | 33.82 | 5.67 | 0.14 | — | 11.63 | 8.24 |
| 20 | 17.63 | 33.95 | 5.46 | 0.15 | — | 3.64 | 8.22 |
| 30 | 17.50 | 33.97 | 5.59 | 0.03 | — | 5.09 | 8.23 |
| 50 | 17.14 | 33.95 | 5.77 | 0.07 | — | 3.64 | 8.23 |
| 75 | 16.62 | 33.94 | 5.16 | 0.39 | — | 12.36 | 8.12 |
| 100 | 13.89 | 34.21 | 6.00 | 0.10 | — | — | 7.85 |
| 125 | 3.92 | 34.08 | 6.02 | 0.28 | — | 24.72 | 7.78 |
| 130 | 2.53 | 34.04 | 5.96 | 0.64 | — | 14.54 | 7.76 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 24 | 0045 | 105 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.20 | 34.29 | 5.57 | 0 | — | 3.64 | 8.10 |
| 10 | 19.40 | 34.28 | 5.46 | 0.1 | — | 1.45 | 8.15 |
| 20 | 19.49 | 34.30 | 5.48 | 0.03 | — | 2.18 | 8.17 |
| 30 | 19.52 | 34.30 | 5.41 | 0.03 | — | 0 | 8.25 |
| 50 | 19.52 | 34.29 | 5.59 | 0.03 | — | 0 | 8.18 |
| 75 | 19.32 | 34.24 | 5.41 | 0 | — | 9.45 | 8.08 |
| 100 | 19.57 | — | — | — | — | — | — |

# 313신 해 양 관 측 성 적

## Oceanographic Data, Line 313

| Monch | 4 월 (창파호) | | | | | | | 7월 (북한산호) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 08 | 07 | 06 |
| Day | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 3 | 3 | 3 | 3 |
| Item \ Time / Z(m) | 0720 | 0930 | 1140 | 1330 | 1700 | 1910 | 2130 | 1020 | 1150 | 1315 | 1440 |
| T 0 | 14.38 | 13.38 | 12.52 | 12.88 | 13.78 | 12.68 | 12.48 | 22.70 | 22.60 | 23.00 | 23.80 |
| T 10 | 13.89 | 13.07 | 12.94 | 12.90 | 11.85 | 11.41 | 10.81 | 22.96 | 22.63 | 22.52 | 23.42 |
| T 20 | 13.91 | 13.06 | 12.92 | 12.60 | 11.79 | 11.13 | 10.50 | 13.09 | 14.38 | 15.73 | 20.36 |
| T 30 | 13.74 | 13.03 | 12.70 | 12.00 | 11.59 | 11.07 | 10.19 | 11.15 | 11.13 | 11.41 | 15.10 |
| T 50 | 12.93 | 13.03 | 12.65 | 12.09 | 11.48 | 11.18 | 9.93 | 10.59 | 10.72 | 11.45 | 15.02 |
| T 75 | 12.53 | 12.68 | 12.40 | 12.12 | 11.19 | 10.19 | 10.97 | — | — | — | — |
| T Botm | 12.38 | 12.17 | 12.25 | 12.05 | 11.12 | 10.02 | 10.99 | 10.41 | 10.73 | 12.84 | 13.99 |
| S 0 | 34.65 | 33.89 | 33.95 | 34.42 | 34.00 | 33.98 | 33.54 | 33.47 | 33.79 | 30.79 | 32.40 |
| S 10 | 34.47 | 33.98 | 33.96 | 33.96 | 33.98 | 34.00 | 33.64 | 33.56 | 33.74 | 31.72 | 32.75 |
| S 20 | 34.40 | 34.15 | 33.93 | 33.80 | 33.71 | 33.82 | 33.42 | 32.80 | 32.64 | 32.55 | 32.76 |
| S 30 | 34.24 | 33.91 | 33.57 | 33.70 | 33.78 | 33.87 | 33.53 | 33.11 | 33.30 | 33.75 | 34.52 |
| S 50 | 34.27 | 34.16 | 33.69 | 33.19 | 34.00 | 33.89 | 33.71 | 33.85 | 34.17 | 33.94 | 34.86 |
| S 75 | 34.43 | 34.33 | 33.91 | 33.82 | 33.96 | 33.89 | 33.97 | — | — | — | — |
| S Botm | — | 34.16 | 34.07 | 34.09 | 34.16 | 33.77 | 33.82 | 34.04 | 34.01 | 34.34 | 34.89 |
| Depth(m) | 97 | 95 | 91 | 86 | 87 | 80 | 82 | 74 | 73 | 75 | 82 |
| Water Trans. | 13 | 8 | 5 | 12 | — | — | — | 14 | 17 | 17 | 18 |
| Water Color | — | — | — | — | — | — | — | 4 | 3 | 3 | 3 |
| Wave | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 4 | 4 | 4 | 4 |
| Swell | 1 | — | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 |
| Air Temp(°C) | 14.0 | 14.7 | 14.5 | 14.5 | 15.6 | 14.6 | 13.5 | 23.8 | 24.0 | 24.2 | 24.4 |
| Baro. (mb) | — | — | — | — | — | — | — | 1007.0 | 1008.0 | 1007.0 | 1007.0 |
| Wind | NW2 | NW2 | NW2 | NW2 | NW2 | NW2 | NW4 | — | WNW | WNW4 | WNW4 |
| Cloud | Cu8 | Cu9 | St5 | St4 | Cu8 | Cu8 | Cu10 | St3 | St3 | St3 | St6 |
| Weather | C | C | BC | BC | C | C | C | BC | BC | BC | BC |

| Month | | 7월 (창파호) | | | | 10월 (한라산) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 05 | 04 | 03 | 02 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Day | | 3 | 3 | 3 | 3 | 16 | 17 | 19 | 19 | — | 19 | 19 |
| Item | Time / Z(m) | 1600 | 1720 | 1840 | 1000 | 0930 | 0940 | 1110 | 1240 | — | 1543 | 1708 |
| T ℃ | 0 | 23.00 | 23.20 | 22.50 | 22.30 | 19.62 | 17.62 | 18.81 | 19.13 | 19.27 | 19.25 | 19.60 |
| | 10 | 22.67 | 23.09 | 23.35 | 22.63 | 19.29 | 13.51 | 18.73 | 18.43 | 19.00 | 19.45 | 19.23 |
| | 20 | 22.09 | 22.63 | 22.70 | 22.61 | 16.73 | 13.75 | 12.88 | 12.49 | 18.97 | 17.63 | 19.14 |
| | 30 | 15.46 | 19.85 | 17.63 | 18.13 | 14.58 | 13.07 | 12.78 | 12.57 | 13.54 | 11.40 | 18.93 |
| | 50 | 13.79 | 13.59 | 13.88 | 15.02 | 14.50 | 13.40 | 12.84 | 12.56 | 11.72 | 11.45 | 12.67 |
| | 75 | - | 13.76 | 13.62 | 14.21 | 19.63 | 17.63 | 18.75 | 18.95 | 19.37 | 19.75 | — |
| | Botm | 13.77 | 13.83 | 13.60 | 14.20 | 19.61 | 17.56 | 18.82 | 18.89 | 19.34 | 19.43 | 11.71 |
| S ‰ | 0 | 32.59 | 31.29 | 33.45 | 33.87 | 32.02 | 33.60 | 31.24 | 31.28 | 32.41 | 32.20 | 31.98 |
| | 10 | 31.59 | 32.08 | 33.49 | 33.88 | 31.94 | 33.53 | 31.28 | 31.18 | 33.55 | 32.25 | 32.02 |
| | 20 | 32.81 | 33.72 | 33.80 | 33.96 | 31.87 | 33.57 | 31.22 | 31.67 | 32.36 | 32.50 | 32.00 |
| | 30 | 34.01 | 33.25 | 34.92 | 34.74 | 33.52 | 32.18 | 31.24 | 32.61 | 32.50 | 32.27 | 32.07 |
| | 50 | 34.57 | 34.49 | 34.60 | 34.96 | 33.75 | 32.11 | 33.37 | 33.31 | 32.68 | 32.41 | 32.34 |
| | 75 | — | 34.62 | 34.62 | 34.94 | 33.77 | 32.20 | 33.46 | 33.37 | 33.26 | 33.10 | — |
| | Botm | 34.61 | 34.63 | 34.62 | 34.94 | 33.86 | 33.55 | 33.39 | 33.51 | 32.47 | 33.21 | 32.38 |
| Depth(m) | | 84 | 91 | 92 | 103 | 92 | 88 | 90 | 86 | 85 | 85 | 75 |
| Water Trans | | 17 | 16 | 15 | 17 | 15 | 15 | 12 | 13 | 18 | 13 | 14 |
| Water Color | | 3 | 3 | 4 | — | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| Wave | | 5 | 4 | 4 | 4 | — | — | — | — | — | — | — |
| Swell | | 5 | 5 | 3 | 5 | — | — | — | — | — | — | — |
| Air Temp(°C) | | 24.7 | 23.0 | 22.2 | 22.1 | — | — | — | — | — | — | — |
| Baro. (mb) | | 1007.0 | 1007.0 | 1007.0 | 1007.0 | — | — | — | — | — | — | — |
| Wind | | WNW5 | WNW | WNW4 | WNW | — | — | — | — | — | — | — |
| Cloud | | St8 | Si9 | St9 | St9 | | | | | | | — |
| Weather | | C | C | C | C | — | — | — | — | — | | — |

| 10월 (한라산) | | 12월 (한라산) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 09 | 10 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 19 | 19 | 9 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1833 | 2003 | 1750 | 0830 | 1005 | 1135 | 1305 | 1440 | 1615 | 1745 | 1915 |
| 19.20 | 19.20 | 16.85 | 14.61 | 15.35 | 14.27 | 14.90 | 13.30 | 13.27 | 12.86 | 14.28 |
| 19.23 | 19.21 | 16.94 | 16.60 | 16.16 | 16.44 | 15.15 | 14.74 | 14.51 | 14.84 | 15.33 |
| 18.19 | 19.21 | 16.92 | 16.56 | 16.16 | 16.07 | 14.83 | 14.65 | 14.73 | 14.04 | 14.84 |
| 18.90 | 19.41 | 16.84 | 16.55 | 16.99 | 16.37 | 14.90 | 14.75 | 14.66 | 15.41 | 14.95 |
| 12.31 | 11.39 | 16.94 | 16.53 | 16.27 | 16.51 | 14.81 | 14.81 | 14.63 | 15.42 | 15.25 |
| — | — | 16.93 | 15.09 | 14.50 | — | — | — | — | — | — |
| 11.53 | 11.39 | 16.97 | 14.85 | 15.58 | 15.93 | 15.05 | 14.63 | 13.85 | 15.30 | 15.03 |
| 32.02 | 31.67 | 33.59 | 33.69 | 33.37 | 33.64 | 33.42 | 33.33 | 33.33 | 33.69 | 33.35 |
| 32.03 | 31.49 | 33.64 | 33.68 | 33.62 | 33.71 | 33.51 | 33.30 | 33.24 | 33.55 | 33.24 |
| 32.07 | 31.85 | 33.73 | 33.68 | 33.69 | 33.91 | 33.46 | 33.30 | 33.35 | 33.57 | 33.39 |
| 32.43 | 32.32 | 33.69 | 33.77 | 33.80 | 33.68 | 33.62 | 33.37 | 33.40 | 33.59 | 33.31 |
| 33.17 | 32.94 | 33.55 | 33.84 | 33.68 | 33.78 | 33.35 | 33.29 | 33.37 | 33.60 | 33.22 |
| — | — | 33.84 | 33.24 | 33.64 | — | — | — | — | — | — |
| 33.13 | 33.03 | 33.62 | 33.31 | 33.35 | 33.89 | 33.15 | 33.30 | 33.22 | 33.40 | 33.44 |
| 73 | 70 | 90 | 94 | 87 | 85 | 83 | 75 | 78 | 70 | 69 |
| 12 | — | 7 | 6 | 4 | 45 | 7 | 8 | 85 | — | — |
| 4 | — | 4 | 5 | 4 | 3 | 5 | 5 | 7 | — | — |
| — | — | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | — |
| — | — | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | — |
| — | — | 3.9 | 7.5 | 7.5 | 7.5 | 7 | 7.5 | 6 | 5.8 | 6.1 |
| — | — | 1030.9 | 1028.5 | 1030.9 | 1030.8 | 1030.9 | 1030.1 | 1030.0 | 1029.0 | 1029.0 |
| — | — | NW4 | NW4 | NW4 | NW4 | NW4 | NW4 | NW3 | NW3 | NW3 |
| — | — | Ns9 | Ns10 | Ns8 | Ns9 | N7s | Ns5 | Ns8 | Ns10 | Ns8 |
| — | — | C | C | C | C | C | BC | C | C | C |

# 314선 해 양 관 측 성 적

## Oceanographic Data, Line 314

| Month | | 5 월 (창파호) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 09 | 08 | 07 | 06 | 05 | 04 | 03 | 02 | 01 |
| Day | | 23 | 23 | 23 | 23 | 23 | 24 | 24 | 24 | 24 |
| Item | Time / Z(m) | 1200 | 1440 | 1720 | 2010 | 2250 | 0130 | 0410 | 0650 | 0930 |
| T ℃ | 0 | 19.08 | 19.88 | 19.98 | 20.08 | 18.18 | 19.98 | 19.78 | 19.58 | 20.01 |
| | 10 | 17.77 | 18.03 | 17.67 | 17.79 | 19.26 | 19.18 | 18.68 | 19.10 | 19.14 |
| | 20 | 17.70 | 17.77 | 17.29 | 17.19 | 18.95 | 18.56 | 16.48 | 18.97 | 17.65 |
| | 30 | 17.27 | 17.29 | 17.01 | 17.07 | 18.08 | 17.00 | 15.90 | 18.51 | 17.74 |
| | 50 | 17.94 | 16.58 | 16.06 | 17.01 | 16.84 | 15.95 | 15.77 | 17.06 | 17.51 |
| | 75 | — | 15.76 | 17.09 | 16.91 | 16.26 | 15.13 | 14.90 | 16.52 | 16.98 |
| | 100 | — | — | — | — | — | — | — | 15.45 | 15.95 |
| | 125 | — | — | — | — | — | — | — | — | 15.63 |
| | Botm | 17.80 | 14.91 | 16.91 | 16.57 | 16.70 | 16.23 | 15.36 | 15.45 | 15.03 |
| S ‰ | 0 | 34.08 | 34.09 | 34.46 | 34.43 | 34.40 | 34.42 | 34.44 | 34.46 | 34.55 |
| | 10 | 34.78 | 34.07 | 34.45 | 34.47 | 34.44 | 34.57 | 34.55 | 34.62 | 34.52 |
| | 20 | 33.50 | 34.44 | 34.44 | 34.48 | 34.52 | 34.51 | 34.30 | 34.57 | 34.40 |
| | 30 | 34.32 | 34.45 | 34.46 | 34.50 | 34.45 | 34.39 | 34.40 | 34.64 | 34.36 |
| | 50 | 34.42 | 34.48 | 34.45 | 34.48 | 34.46 | 34.33 | 34.31 | 34.61 | 34.74 |
| | 75 | — | 34.43 | 34.47 | 34.47 | 34.44 | 34.42 | 34.31 | 34.61 | 34.45 |
| | 100 | — | — | — | — | — | — | — | 34.59 | 34.34 |
| | 125 | — | — | — | — | — | — | — | — | 34.34 |
| | Botm | 34.52 | 34.42 | 34.47 | 34.50 | 34.45 | 34.51 | 34.31 | 34.61 | 34.46 |
| Depth(m) | | 84 | 96 | 99 | 120 | 105 | 110 | 120 | 131 | 142 |
| Water Trans | | 16 | 15 | 17 | — | — | — | — | — | 24 |
| Water Color | | — | — | — | — | — | — | — | — | — |
| Wave | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Swell | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Air Temp(°C) | | 22.3 | 22.5 | 21.6 | 20.4 | 19.7 | 19.5 | 19.2 | 19.9 | 21.0 |
| Baro. (mb) | | — | — | — | — | — | — | — | — | — |
| Wind | | SE6 | SE6 | SE6 | E5 | E5 | E6 | E6 | SE6 | NE7 |
| Cloud | | St7 | St7 | St7 | St8 | St8 | St8 | St8 | St4 | St4 |
| Weather | | BC | BC | BC | C | C | C | C | BC | BC |

7월 (July) 지리산 (Chi Ri San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 00 | 10 | 2015 | 136 | | | E 3 | E 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 3 | | 23.4 | 22.2 | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.25 | 33.24 | 5.07 | 0.08 | 0.08 | 12.36 | 8.31 |
| 10 | 24.28 | 33.24 | 4.93 | 0.04 | 0.09 | 29.81 | 8.41 |
| 20 | 24.27 | 33.23 | 5.25 | 0.04 | 0.07 | 13.81 | 8.45 |
| 30 | 22.94 | 34.05 | 5.33 | 0.13 | 0.08 | 7.27 | 8.48 |
| 50 | 19.12 | 34.72 | 5.33 | 0.22 | 0.18 | 12.36 | 8.35 |
| 75 | 16.60 | 34.74 | 4.72 | 0.34 | 0.15 | 44.35 | 8.25 |
| 100 | 15.28 | 34.82 | 5.21 | 0.39 | 0.14 | 15.99 | 8.08 |
| 130 | 14.78 | 34.93 | 6.05 | 0.39 | 0.18 | 29.81 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 7 | 1335 | 120 | 4 | 19 | ENE 4 | ENE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | | 22.5 | 21.3 | Ac | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.19 | 34.00 | 5.44 | 0.07 | 0.03 | 6.54 | 8.21 |
| 10 | 23.18 | 34.11 | 5.23 | 0.04 | 0.04 | 19.63 | 8.32 |
| 20 | 22.65 | 34.11 | 5.75 | 0.04 | 0.05 | 10.18 | 8.40 |
| 30 | 21.44 | 34.22 | 6.37 | 0.07 | 0.06 | 10.18 | 8.36 |
| 50 | 15.91 | 34.63 | 5.33 | 0.29 | 0.03 | 11.63 | 8.24 |
| 75 | 14.72 | 34.94 | 5.53 | 0.35 | 0.06 | 18.18 | 8.20 |
| 100 | 14.60 | 34.99 | 5.41 | 0.36 | 0.04 | 21.81 | 8.12 |
| 115 | 14.63 | 34.99 | 5.44 | 0.22 | 0.05 | 21.08 | 8.05 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 7 | 1720 | 100 | 3 | 19 | E 3 | E 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | | 22.5 | 20.9 | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.41 | 33.85 | 5.33 | 0.07 | 0.02 | 7.27 | — |
| 10 | 22.92 | 33.86 | 5.33 | 0.14 | 0.03 | 4.36 | 8.20 |
| 20 | 20.79 | 33.09 | 5.64 | 0.13 | 0.05 | 7.27 | 8.35 |
| 30 | 19.67 | 34.29 | 5.64 | 0.10 | 0.04 | 8.00 | 8.35 |
| 50 | 16.48 | 34.38 | 6.06 | 0.15 | 0.08 | 8.00 | 8.25 |
| 75 | 14.62 | 34.93 | 5.06 | 0.38 | 0.02 | 18.90 | 8.10 |
| 95 | 14.58 | 34.94 | 4.79 | — | 0.02 | — | 8.15 |

| St No. | Date | Time | Depth | Water Cotor | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 8 | 1050 | 103 | 4 | 17 | NE 4 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | | 21.8 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.44 | 33.76 | 4.91 | 0.14 | — | 19.63 | 8.22 |
| 10 | 22.11 | 33.82 | 5.44 | 0.08 | 0.02 | 8.00 | 8.32 |
| 20 | 22.13 | 33.83 | 5.21 | 0.07 | 0.03 | 6.54 | 8.33 |
| 30 | 19.86 | 34.33 | 6.20 | 0.14 | 0.01 | 13.81 | 8.30 |
| 50 | 15.76 | 34.45 | 6.12 | 0.13 | 0.12 | 12.36 | 8.30 |
| 75 | 14.65 | 34.35 | 4.60 | 0.36 | 0.14 | 13.81 | 8.18 |
| 100 | 14.63 | 34.97 | 4.72 | 0.42 | 0.06 | 20.36 | 7.98 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 8 | 1400 | 110 | 3 | 19 | ENE 3 | ENE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 4 | | 22 2 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.52 | 33.13 | 5.02 | 0.01 | 0.02 | 13.81 | 8.27 |
| 10 | 22.53 | 33.13 | 5.21 | 0.07 | 0.05 | 13.81 | 8.31 |
| 20 | 21.98 | 33.15 | 5.23 | 0.07 | 0.06 | 7.27 | 8.23 |
| 30 | 19.96 | 34.30 | 5.31 | 0.14 | 0.07 | 10.91 | 8.35 |
| 50 | 14.97 | 34.71 | 6.25 | 0.14 | — | 10.91 | 8.30 |
| 75 | 14.20 | 34.73 | 5.09 | 0.31 | 0.05 | 19.63 | 8.25 |
| 100 | 14.19 | 34.78 | 5.13 | 0.27 | 0.06 | 17.45 | 8.28 |

| St No. | Date | Time | Depth | Water Color | water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 8 | 1655 | 85 | 3 | 21 | ENE 3 | ENE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | | 22.2 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg- t/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.39 | 32.66 | 5.38 | 0.03 | 0.02 | 18.18 | 8.30 |
| 10 | 22.37 | 32.64 | 5.33 | 0.01 | 0.02 | 18.18 | 8.32 |
| 20 | 20.64 | 32.93 | 5.85 | 0.11 | 0.02 | 12.36 | 8.32 |
| 30 | 14.84 | 34.04 | 6.69 | 0.10 | 0.02 | 10.18 | 8.21 |
| 50 | 13.95 | 34.62 | 5.23 | 0.22 | 0.06 | 15.27 | 8.20 |
| 75 | 13.97 | 34.63 | 5.28 | 0.20 | 0.05 | 14.54 | 8.10 |
| 80 | 13.94 | 34.66 | 5.33 | 0.29 | — | 17.45 | 8.12 |

10월 (October) 백두산 (Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 00 | 20 | 1355 | 150 | 3 | 20 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1019.9 | 23.5 | | Cu | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.70 | 34.61 | 5.48 | 0.21 | 0 | 15.27 | 7.94 |
| 10 | 23.45 | 34.53 | 5.57 | 0.14 | 0 | 14.54 | 8.30 |
| 20 | 23.46 | 34.52 | 7.37 | 0.14 | 0 | 8.72 | 8.15 |
| 30 | 23.43 | 34.52 | 5.48 | — | — | — | 8.05 |
| 50 | 23.41 | 34.52 | 5.36 | 0.10 | 0 | 34.17 | 7.98 |
| 75 | 18.49 | 34.01 | 8.06 | 0.36 | 0 | 32.72 | 7.57 |
| 100 | 16.72 | 34.62 | 3.76 | 0.38 | 0.01 | 29.08 | 7.02 |
| 125 | 16.64 | 34.59 | 3.98 | 0.67 | 0 | 30.53 | 7.88 |
| 145 | 15.52 | 34.47 | 3.92 | 0.63 | 0.01 | 21.81 | 7.70 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 20 | 1022 | 115 | 3 | 25 | E 3 | E 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1022.3 | 22.2 | | Cu | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.05 | 34.50 | 5.24 | 0.10 | 0 | 10.91 | 7.45 |
| 10 | 23.13 | 34.47 | 5.16 | 0.14 | 0 | 15.99 | — |
| 20 | 23.15 | 34.47 | 5.36 | 0.17 | 0 | 10.91 | 8.40 |
| 30 | 23.13 | 34.46 | 5.21 | 0.17 | 0 | 12.36 | — |
| 50 | 23.10 | 34.45 | 5.07 | 0.14 | 0 | 21.81 | 8.30 |
| 75 | 19.35 | 34.45 | 3.40 | 0.62 | 0 | 29.08 | 8.00 |
| 100 | 17.90 | 34.40 | 3.79 | 0.52 | 0 | 26.17 | 8.16 |
| 110 | 15.98 | 34.30 | 4.25 | 0.01 | 0.06 | 18.18 | 7.66 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 16 | 1820 | 98 | | | NE 4 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | | 17.2 | | Ci | 10 | C |

OBSERVED

| Z m | T C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.73 | 34.55 | 4.90 | 0.04 | 0 | 9.45 | 7.72 |
| 10 | 23.73 | 34.49 | 5.15 | 0.01 | 0 | 10.91 | 8.19 |
| 20 | 23.73 | 34.50 | 5.36 | 0 | 0 | 15.99 | 8.03 |
| 30 | 23.76 | 34.51 | 4.95 | 0.01 | 0 | 14.54 | 8.10 |
| 50 | 23.75 | 34.49 | 5.15 | 0.03 | 0 | 12.36 | 7.98 |
| 75 | 18.59 | 34.34 | 4.25 | 0.42 | 0 | 36.35 | 7.32 |
| 95 | 18.44 | 34.38 | 3.45 | 0.49 | 0 | 31.26 | 7.45 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 16 | 2200 | 110 | | | SE 3 | SE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amounn | |
| E3 | 5 | 1019.3 | 17.9 | | Ci | 8 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.15 | 33.62 | 5.41 | 0.06 | 0 | 15.27 | 7.53 |
| 10 | 20.12 | 33.56 | 5.57 | 0.10 | 0 | 13.81 | 7.70 |
| 20 | 18.71 | 33.53 | 4.85 | 0.24 | 0 | 14.54 | 7.63 |
| 30 | 19.03 | 33.77 | 5.34 | 0 | 0 | 18.18 | 7.75 |
| 50 | 17.86 | 34.17 | 4.42 | 0.08 | 0 | 27.63 | 7.90 |
| 75 | 16.78 | 34.17 | 4.33 | 0.14 | 0 | 21.08 | 7.65 |
| 100 | 15.85 | 34.23 | 4.25 | 0.08 | 0 | 22.54 | 7.42 |

| Month | | 12월 (백두산) | | | | | |
|---|---|---|---|---|---|---|---|
| St. No. | | 00 | 02 | 04 | 06 | 08 | 10 |
| Day | | 24 | 24 | 25 | 25 | 25 | 25 |
| Item | Time / Z(m) | 1815 | 2135 | 0030 | 0325 | 0640 | 0945 |
| T ℃ | 0 | 18.82 | 18.56 | 17.82 | 17.59 | 17.02 | 15.72 |
| | 10 | 18.84 | 18.62 | 17.80 | 17.69 | 17.15 | 15.75 |
| | 20 | 18.82 | 18.68 | 17.85 | 17.72 | 17.12 | 15.71 |
| | 30 | 18.83 | 18.63 | 17.82 | 17.71 | 17.13 | 15.78 |
| | 50 | 18.79 | 18.72 | 17.84 | 17.74 | 17.14 | 16.01 |
| | 75 | 18.73 | 18.64 | 17.82 | 17.73 | 17.14 | 16.76 |
| | 100 | 17.93 | — | — | — | — | — |
| | 125 | 15.91 | — | — | — | — | — |
| | Botm | 15.02 | 18.09 | 17.80 | 17.74 | 17.12 | — |
| S ‰ | 0 | 34.73 | 34.73 | 34.64 | 34.69 | 34.58 | — |
| | 10 | — | 34.59 | — | 34.65 | 34.60 | 34.03 |
| | 20 | 33.68 | 34.08 | — | 34.64 | 34.60 | — |
| | 30 | 34.72 | 34.71 | — | 34.65 | 34.46 | 33.47 |
| | 50 | — | 34.67 | 34.55 | 34.37 | 34.60 | 34.06 |
| | 75 | 34.73 | 34.71 | 34.64 | 34.58 | 34.60 | — |
| | 100 | 34.68 | — | — | — | — | — |
| | 125 | 34.35 | — | — | — | — | — |
| | Botm | 34.51 | 34.33 | 34.66 | — | — | 34.34 |
| Depth(m) | | 138 | 108 | 104 | 112 | 106 | 82 |
| Water Trans. | | — | — | — | — | — | 9 |
| Water Color | | — | — | — | — | — | 4 |
| Wave | | — | — | N2 | N2 | SW3 | SW3 |
| Swell | | — | — | N1 | N1 | SW1 | SW1 |
| Air Temp(°C) | | — | — | 6.2 | 7.1 | 7.2 | 8.8 |
| Baro. (mb) | | — | — | 1025.6 | 1024.3 | 1024.0 | 1025.1 |
| Wind | | — | — | N10 | N7 | N3 | SW12 |
| Cloud | | — | — | Ac9 | Ac5 | Ac9 | Ac9 |
| Weather | | — | — | C | BC | C | C |

# 315선 해 양 관 측 성 적

## Oceanographic Data Line 315

| Month | | 5 월 (창 파 호) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| Day | | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| Item | Time / Z(m) | 0200 | 0400 | 0600 | 0800 | 1000 | 1200 | 1400 | 1600 | 1800 |
| T ℃ | 0 | 21.88 | 21.38 | 21.18 | 21.28 | 21.48 | 21.58 | 21.78 | 21.88 | 21.48 |
| | 10 | | | | | | | | | |
| | 20 | | | | | | | | | |
| | 30 | | | | | | | | | |
| | 30 | | | | | | | | | |
| | 50 | | | | | | | | | |
| | 75 | | | | | | | | | |
| | 100 | | | | | | | | | |
| | 125 | | | | | | | | | |
| | Botm | | | | | | | | | |
| S ‰ | 0 | 33.56 | 33.52 | 32.74 | 32.73 | 33.14 | 32.60 | 32.22 | 32.19 | 32.20 |
| | 10 | | | | | | | | | |
| | 20 | | | | | | | | | |
| | 30 | | | | | | | | | |
| | 50 | | | | | | | | | |
| | 75 | | | | | | | | | |
| | 100 | | | | | | | | | |
| | Botm | | | | | | | | | |
| Depth(m) | | 130 | 125 | 16 | 100 | 93 | 95 | 85 | 80 | 70 |
| Wtaer Trans. | | — | — | — | 16 | 15 | 15 | 13 | 15 | 14 |
| Water Color | | — | — | — | — | 2 | — | — | — | — |
| Wave | | 5 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 |
| Swell | | 3 | 3 | 3 | 2 | — | 2 | 2 | 2 | 2 |
| Air Temp(°C) | | 20.6 | 20.1 | 20.3 | 21.4 | 22.5 | 23.5 | 24.1 | 23.8 | 22.1 |
| Baro. (mb) | | — | — | — | — | — | — | — | — | — |
| Wind | | W5 | SW7 | SW7 | SW7 | SW6 | SW6 | SW6 | SW6 | SW6 |
| Cloud | | Ci3 | Sc7 | Sc7 | Sc7 | Sc7 | Sc7 | St7 | St7 | Sc7 |
| Weather | | BC | BC | BC | BC | BC | BC | BC | BC | BC |

7월 (July) 지리산 (Chi Ri San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 10 | 1720 | 158 | 3 | 21 | E 3 | E 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 3 | | 24.4 | 22.9 | Ac | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.54 | 33.05 | 5.25 | 0.04 | 0.04 | 13.81 | 8.35 |
| 10 | 24.51 | 33.06 | 5.54 | 0.04 | 0.03 | 10.18 | 8.35 |
| 20 | 24.27 | 33.14 | 5.12 | 0.04 | 0.06 | 63.98 | 8.35 |
| 30 | 23.02 | 34.33 | 5.41 | 0.04 | 0.04 | 12.36 | 8.40 |
| 50 | 19.69 | 34.79 | 5.46 | 0.10 | 0.11 | 11.63 | 8.35 |
| 75 | 16.84 | 34.71 | 4.81 | 0.15 | 0.13 | 16.72 | 8.35 |
| 100 | 15.08 | 34.90 | 5.23 | 0.36 | 0.14 | 39.99 | 8.21 |
| 125 | 14.73 | 34.93 | — | 0.53 | 0.07 | 17.45 | 8.25 |
| 150 | 14.39 | 34.45 | — | 0.05 | 0.08 | 19.63 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 9 | 0920 | 125 | 4 | 17 | NE 5 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 5 | | 23.8 | 23.2 | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.96 | — | 6.16 | — | 0.02 | 12.36 | 8.15 |
| 10 | 23.00 | 33.49 | 5.21 | 0.04 | 0.02 | 12.36 | 8.10 |
| 20 | 22.74 | 33.55 | 5.24 | 0.07 | 0.03 | 12.36 | 8.30 |
| 30 | 19.96 | 34.23 | 6.09 | 0.15 | 0.06 | 8.72 | 8.31 |
| 50 | 15.43 | 34.86 | 5.54 | 0.21 | 0.09 | 13.81 | 8.30 |
| 75 | 14.62 | 34.94 | 4.92 | 0.55 | 0.11 | 21.81 | 8.20 |
| 100 | 14.51 | 34.99 | 4.92 | 0.62 | 0.10 | 14.54 | 8.12 |
| 120 | 14.51 | 34.98 | 5.96 | 0.45 | 0.05 | 12.36 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 14 | 9 | 0615 | 110 | 4 | 15 | NE 4 | NE 4 |

| Wind | | Baro. | AirT emp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 5 | | 23.2 | 22.6 | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.74 | 33.20 | 5.44 | 0.07 | — | — | 8.12 |
| 10 | 22.48 | 33.25 | 5.23 | — | 0.02 | 10.18 | 8.21 |
| 20 | 21.97 | 34.17 | 5.94 | 0.10 | 0.02 | 14.54 | 8.25 |
| 30 | 17.96 | 34.64 | 6.38 | 0.14 | 0.02 | 11.63 | 8.31 |
| 50 | 15.22 | 34.91 | 4.91 | 0.35 | 0.14 | 15.27 | 8.20 |
| 75 | 14.69 | 34.93 | 5.02 | 0.36 | 0.08 | 18.18 | 8.04 |
| 100 | 14.63 | 34.95 | 4.29 | 0.36 | 0.05 | 18.18 | 8.05 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 16 | 9 | 0250 | 103 | | | NE 4 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | | 22.8 | 22.6 | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.75 | 33.74 | 5.15 | 0.10 | 0.04 | 11.63 | 8.40 |
| 10 | 22.74 | 33.74 | 5.23 | 0.02 | 0.02 | 10.91 | 8.39 |
| 20 | 22.15 | 33.88 | 5.44 | 0.08 | 0.01 | 10.18 | 8.32 |
| 30 | 18.59 | 34.39 | 5.96 | 0.04 | 0.06 | 10.91 | 8.32 |
| 50 | 14.24 | 34.78 | 5.52 | 0.14 | 0.03 | 12.36 | 8.30 |
| 75 | 14.35 | 34.88 | 5.02 | 0.28 | 0.08 | 14.54 | 8.10 |
| 100 | 14.36 | 34.89 | 5.10 | 0.35 | 0.03 | 17.45 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 18 | 8 | 2345 | 94 | | | NE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | | 22.2 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.18 | 33.00 | 5.43 | 0.04 | 0.04 | 14.54 | 8.18 |
| 10 | 22.10 | — | 5.54 | 0.07 | 0.06 | 16.72 | 8.31 |
| 20 | 20.91 | 32.86 | 6.08 | — | 0.02 | 13.09 | 8.13 |
| 30 | 20.20 | 32.87 | 5.94 | 0.04 | 0.01 | 14.54 | 8.20 |
| 50 | 10.91 | — | 5.31 | 0.25 | 0.09 | 17.45 | 8.30 |
| 75 | 12.79 | 34.29 | 5.33 | 0.34 | 0.03 | 15.27 | 8.30 |
| 90 | 12.88 | 34.35 | 5.44 | 0.24 | 0.10 | 14.54 | 8.23 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 20 | 8 | 2005 | 85 | | | NE 4 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | | 22.4 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.65 | 32.66 | 5.35 | 0.06 | 0.06 | 18.18 | 8.28 |
| 10 | 21.65 | 32.64 | 5.41 | 0.10 | 0.02 | 10.91 | 8.31 |
| 20 | 19.51 | 32.72 | 5.77 | 0.07 | 0.04 | 10.91 | 8.21 |
| 30 | 13.41 | 32.82 | 5.98 | 0.19 | 0.02 | 18.90 | 8.16 |
| 50 | 10.52 | 33.26 | 5.86 | 0.56 | 0.03 | 14.54 | 8.13 |
| 80 | 11.26 | 33.66 | 5.44 | 0.49 | 0.04 | 16.72 | 8.18 |

10월 (October) 백두산 (Beak Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 20 | 0615 | 152 | | | NE 4 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1022.4 | 19.9 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.70 | 34.53 | 5.05 | 0.24 | 0 | 18.18 | 8.22 |
| 10 | 23.35 | 34.48 | 4.84 | 0.08 | 0 | 7.27 | 8.15 |
| 20 | 23.32 | 34.48 | 4.93 | 0.17 | 0 | 7.27 | 8.34 |
| 30 | 23.30 | 34.48 | 4.92 | 0.06 | 0 | 14.54 | 8.22 |
| 50 | 23.42 | 34.47 | 5.16 | 0.35 | 0 | 21.81 | 8.08 |
| 75 | 20.17 | 34.41 | 3.94 | 0.42 | 0 | 21.81 | 8.00 |
| 100 | 18.68 | 34.53 | 3.79 | 0.64 | 0.05 | 30.53 | 8.02 |
| 125 | 16.65 | 34.62 | 4.12 | 0.06 | 0 | 26.89 | — |
| 150 | 15.78 | 34.61 | 4.02 | 0.45 | 0.07 | 13.81 | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 20 | 0250 | 123 | | | NE 4 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1023.4 | 20.6 | | Cc | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.00 | 34.60 | 4.54 | 0.11 | 0 | 5.09 | 8.16 |
| 10 | 23.19 | 34.55 | 7.11 | 0.04 | 0 | 14.54 | 8.25 |
| 20 | 23.22 | 34.54 | 5.55 | 0.11 | 0 | 7.27 | 8.27 |
| 30 | 23.19 | 34.55 | 5.21 | 0.08 | 0 | 6.54 | 8.30 |
| 50 | 23.21 | 34.56 | 5.16 | 0 | 0 | 8.18 | 8.27 |
| 75 | 16.37 | 33.65 | 4.43 | 0.29 | 0.01 | 22.54 | 8.02 |
| 100 | 16.09 | 33.99 | — | 0.52 | — | 34.17 | 8.04 |
| 120 | 16.71 | 34.61 | — | 0.30 | — | 13.81 | 8.05 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 14 | 19 | 2335 | 108 | | | SE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1024.1 | 20.2 | | Cc | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.00 | 34.10 | 5.18 | 0.14 | 0 | 9.45 | 7.99 |
| 10 | 21.92 | 34.03 | 5.16 | 0.28 | 0 | 13.81 | 8.08 |
| 20 | 21.94 | 34.02 | 5.26 | 0.15 | 0 | 12.36 | 8.28 |
| 30 | 21.94 | 34.00 | 5.42 | 0.15 | 0 | 5.82 | 8.25 |
| 50 | 21.80 | 33.98 | 5.31 | 0.11 | 0 | 26.17 | 8.27 |
| 75 | 16.21 | 34.59 | 4.12 | 0.24 | 0 | 24.72 | 7.87 |
| 100 | 16.73 | 34.59 | 3.71 | 0.57 | 0 | 8.72 | 7.87 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 16 | 19 | 1900 | 108 | | | E 5 | E 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 5 | 1025.0 | 19.7 | | St | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.30 | 32.48 | 5.46 | 0.11 | 0 | 14.54 | 7.97 |
| 10 | 20.37 | 32.39 | 5.88 | 0.15 | 0 | 18.18 | 8.08 |
| 20 | 20.41 | 32.41 | 5.57 | 0.10 | 0 | 15.99 | 8.13 |
| 30 | 20.70 | 32.77 | 5.05 | 0.06 | 0 | 25.45 | 8.08 |
| 50 | 15.67 | 32.99 | 5.26 | 0.08 | 0 | 24.72 | 7.72 |
| 75 | 16.64 | 34.09 | 4.25 | 0.29 | 0 | 34.17 | 7.90 |
| 100 | 16.50 | 34.53 | 4.38 | 0.69 | 0.02 | 15.99 | 7.52 |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 18 | 19 | 1650 | 94 | 5 | 13 | E 4 | E 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 4 | 1023.4 | 21.9 | | St | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.25 | 32.15 | 5.57 | 0.06 | 0 | 10.18 | 7.78 |
| 10 | 20.06 | 31.97 | 5.67 | — | 0 | 13.09 | 8.18 |
| 20 | 21.63 | 33.56 | 5.36 | 0.03 | 0 | 12.36 | 8.25 |
| 30 | 22.17 | 33.96 | 4.82 | 0.07 | 0 | 27.63 | — |
| 50 | 19.11 | 34.41 | 3.51 | 0.42 | 0 | 24.72 | 7.98 |
| 75 | 15.31 | 34.05 | 4.43 | 0.45 | 0 | 21.81 | 7.86 |
| 90 | 15.33 | 34.05 | 4.31 | 0.56 | 0 | 17.45 | 7.93 |

| Month | | 12월 (백 두 산) | | | | | |
|---|---|---|---|---|---|---|---|
| St. No. | | 20 | 18 | 16 | 14 | 12 | 10 |
| Day | | 25 | 25 | 25 | 25 | 26 | 26 |
| Item | Time / Z(m) | 1240 | 1510 | 1820 | 2120 | 0030 | 0325 |
| T ℃ | 0 | 12.73 | 15.64 | 17.53 | 18.52 | 19.20 | 19.40 |
| | 10 | 13.04 | 15.69 | 17.58 | 18.52 | 19.31 | 19.30 |
| | 20 | 13.47 | 15.63 | 17.64 | 18.56 | 19.34 | 19.30 |
| | 30 | 14.02 | 16.22 | 17.60 | 18.54 | 19.35 | 19.30 |
| | 50 | 14.13 | 15.91 | 17.61 | 18.34 | 19.35 | 19.18 |
| | 75 | — | — | 17.68 | 18.11 | 19.37 | 19.32 |
| | 100 | — | — | — | 18.02 | 19.31 | 19.34 |
| | 125 | — | — | — | — | — | 19.32 |
| | Botm | 14.07 | 16.51 | 17.63 | 18.41 | 17.19 | 17.41 |
| S ‰ | 0 | 32.56 | — | — | 34.70 | 34.69 | 34.76 |
| | 10 | 32.58 | 31.07 | 32.43 | 34.70 | 34.44 | 34.73 |
| | 20 | 32.76 | 33.61 | 32.56 | -- | 34.65 | — |
| | 30 | — | 33.93 | 32.29 | 34.60 | 34.65 | 34.67 |
| | 50 | 32.99 | 33.90 | 32.51 | 34.65 | 34.63 | 34.73 |
| | 75 | — | — | 32.39 | 34.62 | 34.60 | 34.75 |
| | 100 | — | — | — | — | 34.69 | 34.77 |
| | 125 | — | — | — | — | — | 34.80 |
| | Botm | — | 34.07 | 34.51 | -- | 34.66 | 34.67 |
| Depth(m) | | 66 | 85 | 101 | 116 | 120 | 160 |
| Water Tans. | | 8 | 6 | — | — | — | — |
| Water Color | | 5 | 5 | — | -- | — | — |
| Wave | | SE 2 | S2 | NNW 3 | NNW 2 | NW 2 | NW 2 |
| Swell | | SE 1 | W 1 | NNW 1 | NNW 1 | NW 1 | NW 1 |
| Air Temp(°C) | | 10.4 | 10.6 | 10.6 | 10.2 | 11.0 | 10.9 |
| Baro. (mb) | | 1023.8 | — | 1022.6 | 1022.9 | 1021.9 | 1021.4 |
| Wind | | SE 8 | 1022.4 | NNW 10 | NNW 7 | NNW 9 | NW 10 |
| Cloud | | Ci 9 | Ac 4 | Ns 10 | Ns 10 | Ns 10 | Ns 10 |
| Weather | | C | BC | R | R | R | R |

# 서 해 해 양 조 사 성 적

# OCEANOGRAPHIC OBSERVATIONS WESTERN WATERS

1 9 6 7

# 306선 해 양 관 측 성 적

## Oceanographic Data, Line 306

| Month | | 5월 (창 파 호) | | | | | | 6월 (진 양 호) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 02 | 03 | 04 | 05 | 06 | 07 | 02 | 03 | 04 | 05 | 06 |
| Day | | 3 | 3 | 3 | 3 | 4 | 4 | 27 | 27 | 27 | 27 | 27 |
| Item | Time / Z(m) | 1720 | 1930 | 2140 | — | 0200 | 0410 | 0605 | 0745 | 0925 | 1105 | 1250 |
| T ℃ | 0 | 8.10 | 9.50 | 9.10 | 9.50 | 9.70 | 9.10 | 18.92 | 18.62 | 18.42 | 20.92 | 21.42 |
| | 10 | 8.19 | — | 10.70 | 9.27 | 8.09 | 8.59 | 17.06 | — | 16.77 | 20.20 | 20.71 |
| | 20 | — | — | — | 7.91 | 7.64 | 9.12 | — | — | — | 17.48 | 18.34 |
| | 30 | — | — | — | 7.44 | 7.18 | 7.83 | — | — | — | 16.88 | 15.87 |
| | Botm | 7.74 | 9.06 | 8.79 | 7.39 | 7.19 | 7.91 | 16.28 | 16.42 | 16.66 | 15.84 | 14.27 |
| S ‰ | 0 | 31.92 | 31.71 | 31.62 | 31.83 | — | 31.74 | — | 31.66 | 31.51 | 31.87 | 31.94 |
| | 10 | 31.83 | — | 31.56 | 31.38 | 31.74 | 31.71 | — | — | 31.59 | 31.91 | 31.94 |
| | 20 | — | — | — | 31.67 | 31.71 | 31.65 | — | — | — | 31.94 | 31.77 |
| | 30 | — | — | — | 31.74 | 31.80 | 31.56 | — | — | — | 31.93 | 31.90 |
| | Botm | 31.83 | 31.65 | 31.65 | — | 31.79 | 31.65 | — | 31.64 | 31.99 | 31.92 | 32.04 |
| Depth(m) | | 27 | 15 | 20 | 45 | 54 | 56 | 28 | 15 | 20 | 45 | 51 |
| Water Trans. | | 1 | 1 | 1 | 2 | 2 | — | 5 | — | 4 | 4 | 3 |
| Water Color | | — | — | — | — | — | — | — | — | — | — | — |
| Wave | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 |
| Swell | | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 |
| Air Temp(°C) | | 12.5 | 12.5 | 10.4 | 9.8 | 9.4 | 7.1 | 19.5 | 19.7 | 18.8 | 20.7 | 21.5 |
| Baro. (mb) | | — | — | — | — | — | — | 1009.6 | 1009.5 | 1008.3 | 1007.4 | 1006.4 |
| Wind | | NW 6 | NW 6 | NW 5 | NW 5 | NW 5 | SE 3 | SE 3 | SE 3 | SE 3 | SE 3 | E 4 |
| Cloud | | St 4 | St 4 | St 4 | St 4 | St 4 | St | St 10 | St 10 | Ns 10 | Ns 10 | Ns 10 |
| Weather | | BC | BC | BC | BC | BC | BC | C | C | C | C | C |

| Month | | 6월(진양호) | | 10월 (한 라 산) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 07 | 08 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| Day | | 27 | 27 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| Item | Time / Z(m) | 1430 | 1613 | 0600 | 0730 | 0850 | 1010 | 1130 | 1255 | 1415 | 1540 | 1705 |
| T | 0 | 22.12 | 22.01 | 18.08 | 18.38 | 17.32 | 16.31 | 16.44 | 16.88 | 17.08 | 17.45 | 17.55 |
| | 10 | 21.55 | 21.46 | 18.02 | 18.16 | 17.23 | 16.12 | 16.66 | 16.52 | 17.02 | 17.12 | 17.02 |
| | 20 | 18.81 | 18.57 | — | — | — | 16.22 | 16.65 | 16.84 | 16.87 | 13.70 | 13.00 |
| | 30 | 12.71 | 21.06 | — | — | — | 15.38 | 16.42 | 15.11 | 14.43 | 11.59 | 10.55 |
| ℃ | 50 | — | 18.44 | — | — | — | — | — | — | — | — | — |
| | Botm | 11.79 | 17.39 | 17.91 | 17.93 | 17.30 | 14.76 | 14.98 | 14.96 | 12.45 | 11.34 | 10.16 |
| S | 0 | 32.07 | 32.05 | 31.42 | 31.55 | 31.44 | 31.26 | 31.82 | 31.74 | 32.03 | 32.05 | 32.09 |
| | 10 | 32.07 | 31.69 | 31.40 | 31.56 | 31.42 | 31.80 | 31.74 | 31.60 | 31.97 | 32.02 | 32.07 |
| | 20 | 32.28 | — | — | — | — | 31.85 | 31.83 | 31.76 | 32.00 | 32.25 | 32.23 |
| | 30 | 32.24 | 32.27 | — | — | — | 32.12 | 31.83 | 32.16 | 32.29 | 32.43 | 32.02 |
| ‰ | 50 | — | 32.26 | — | — | — | — | — | — | — | — | — |
| | Botm | 32.22 | 32.10 | — | 31.55 | — | 32.25 | 32.21 | 32.20 | 32.14 | 32.24 | 31.91 |
| Depth(m) | | 60 | 65 | 28 | 16 | 20 | 45 | 50 | 60 | 62 | 67 | 70 |
| Water Trans. | | 3 | 4 | — | 3 | 2 | 11 | 13 | 14 | 14 | 21 | 18 |
| Water Color | | — | — | — | 6 | 6 | 5 | 4 | 4 | 3 | 3 | 3 |
| Wave | | 3 | 3 | — | — | — | — | — | — | — | — | — |
| Swell | | 2 | 2 | — | — | — | — | — | — | — | — | — |
| Air Temp(°C) | | 22.7 | 22.6 | — | — | — | — | — | — | — | — | — |
| Baro. (mb) | | 1006.5 | 1004.1 | — | — | — | — | — | — | — | — | — |
| Wind | | E4 | E 4 | — | — | — | — | — | — | — | — | — |
| Cloud | | Ss 10 | Ns 10 | — | — | — | — | — | — | — | — | |
| Weather | | C | C | — | — | — | — | | | | | |

12월(한 라 산)

| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|
| 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 |
| 1330 | 1500 | — | 1800 | 0210 | 0030 | 2250 | 2120 | 1930 |
| 4.95 | 4.94 | 4.93 | 5.10 | 5.20 | 5.70 | 5.45 | 5.78 | 5.85 |
| 5.44 | — | 5.37 | 5.49 | 6.02 | 6.06 | 6.34 | 6.09 | 6.25 |
| — | — | — | 5.47 | 6.35 | 6.17 | 6.31 | 6.10 | 6.47 |
| — | — | — | 5.54 | 6.22 | 6.39 | 6.42 | 6.25 | 6.42 |
| — | — | — | — | — | — | 6.49 | 6.78 | 6.58 |
| 5.28 | 5.31 | 5.39 | 5.49 | 6.39 | 6.16 | 6.44 | 6.92 | 6.92 |
| 32.20 | 32.14 | 32.20 | 32.25 | 32.29 | 32.03 | 32.12 | 32.14 | 31.65 |
| 32.38 | — | 32.20 | 32.25 | 32.16 | 32.00 | 32.03 | 32.03 | 31.98 |
| — | — | — | 32.12 | 32.20 | 31.76 | 32.14 | 32.48 | 31.92 |
| — | — | — | 32.29 | 32.21 | 32.20 | 32.66 | 32.63 | 32.02 |
| — | — | — | — | — | — | 32.61 | 32.79 | 32.34 |
| 32.41 | 32.02 | 32.25 | 32.32 | 32.21 | 32.21 | 32.66 | 32.92 | 32.39 |
| 25 | 12 | 18 | 43 | 51 | 52 | 64 | 65 | 72 |
|  | 3 | 3.5 | — | — | — | — | — | — |
| 7 | 6 | 5 | — | — | — | — | — | — |
| 3 | 3 | 3 | 2 | — | — | — | — | — |
| 3 | 3 | 3 | 3 | — | — | — | — | — |
| —0.2 | 1.5 | —0.3 | —1 | —2.5 | —2.0 | —2.0 | —2.0 | —2.0 |
| 1029.5 | 1029.7 | 1030.1 | 1030.1 | 1026.5 | 1025.1 | 1023.1 | 1021.2 | 1020.1 |
| NW 3 | NW 3 | SE 3 | SE 2 | NE 3 | NE 3 | NE 3 | NW 3 | NW 3 |
| Ns 10 | Ns 10 | Ns 10 | Ns 10 | — | — | — | — | — |
| C | C | C | C | — | — | — | — | — |

# 307선 해 양 관 측 성 적

## Oceanographic Data, Line 307

| Month | | 5월 (창 파 호) | | | | | 6월 (진 양 호) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 03 | 04 | 05 | 06 | 07 | 03 | 04 | 05 | 06 | 07 | 08 |
| Day | | 3 | 3 | 3 | 3 | 2 | 28 | 28 | 28 | 27 | 27 | 27 |
| Item | Time / Z(m) | 1420 | 1210 | 1000 | 0750 | 0540 | 0630 | 0323 | 0140 | 2253 | 2105 | 1915 |
| T ℃ | 0 | 7.90 | 8.10 | 9.60 | 8.60 | 9.10 | 18.62 | 19.32 | 20.52 | 22.12 | 22.32 | 22.52 |
| | 10 | 7.65 | 10.95 | 7.56 | 6.65 | 7.26 | 15.66 | 17.47 | 20.01 | 18.43 | 21.50 | 21.51 |
| | 20 | 7.31 | 7.58 | 7.14 | 6.54 | 6.43 | 15.57 | 15.79 | 16.47 | 15.64 | 17.14 | 16.32 |
| | 30 | — | — | 8.78 | 6.20 | 6.68 | — | — | 13.88 | 13.78 | 14.13 | 13.40 |
| | 50 | — | — | — | — | — | — | — | — | — | 10.29 | 10.17 |
| | Botm | 7.50 | 7.44 | 7.02 | 6.13 | 6.31 | 13.51 | 14.90 | 13.36 | 11.06 | 8.99 | 9.68 |
| S ‰ | 0 | 31.85 | 31.83 | 31.89 | 32.23 | 32.63 | 31.62 | 32.12 | 31.94 | 31.91 | 32.08 | 32.21 |
| | 10 | 32.11 | 31.92 | 32.09 | 32.27 | 32.59 | 32.02 | 32.18 | 32.12 | 32.05 | 32.10 | 32.21 |
| | 20 | 31.83 | 31.85 | 32.54 | 32.25 | 32.48 | 32.04 | 32.15 | 32.08 | 32.25 | 32.39 | 32.30 |
| | 30 | — | — | 31.94 | 32.34 | 32.83 | — | — | 32.14 | 32.22 | 32.36 | 32.32 |
| | 50 | — | — | — | — | — | — | — | — | — | 32.27 | 32.27 |
| | Botm | 31.87 | 31.92 | 32.02 | 31.47 | 32.18 | 32.11 | 32.16 | 32.14 | 32.23 | 32.29 | 32.27 |
| Depth(m) | | 33 | — | 56 | 63 | 60 | 38 | 36 | 43 | 56 | 64 | 62 |
| Water Trans. | | 2 | — | 3 | 4 | — | — | — | — | — | — | 4 |
| Water Color | | — | — | — | — | — | — | — | — | — | — | — |
| Wave | | 0.5 | — | 0.5 | 0.5 | 0.5 | 3 | 3 | 3 | — | 3 | 3 |
| Swell | | 2 | — | 2 | 2 | 2 | 2 | 2 | 2 | — | 2 | 2 |
| Air Temp. (°C) | | 12.8 | — | 10.5 | 9.7 | 9.5 | 18.3 | 19.5 | 19.8 | 21.3 | 21.8 | 22.1 |
| Baro (mb) | | — | — | — | — | — | 993.6 | 996.5 | 999.4 | 1003.3 | 1001.4 | 1001.7 |
| Wind | | W 5 | — | W 5 | W 5 | W 6 | S 3 | N 4 | N 4 | E 4 | E 4 | E 4 |
| Cloud | | As 2 | — | As 2 | As 2 | As 2 | St 10 | Ns 10 | Ns 10 | Ns 10 | St 10 | St 10 |
| Weather | | B | — | B | B | B | C | C | C | C | C | C |

10월 (한 라 산)

| 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|
| 27 | 27 | 27 | 27 | 27 | 26 | 26 | 26 |
| 0545 | 0420 | 0255 | 0130 | 0005 | 2240 | 2115 | 1950 |
| 18.10 | 17.80 | 17.22 | 16.62 | 16.51 | 16.64 | 16.49 | 17.10 |
| 17.93 | 17.83 | 17.06 | 16.58 | 16.43 | 16.40 | 16.42 | 17.00 |
| 17.22 | 17.63 | 15.40 | 16.28 | 16.44 | 16.30 | 16.30 | 16.70 |
| — | — | 11.99 | 16.10 | 15.49 | 15.46 | 16.32 | 10.36 |
| — | — | — | 10.98 | 11.79 | 11.48 | 10.17 | 10.11 |
| 17.75 | 17.59 | 11.75 | 10.70 | 11.16 | 10.98 | 10.09 | 10.03 |
| 31.78 | 31.56 | 32.07 | 32.11 | 32.12 | 32.14 | 32.16 | 31.91 |
| 31.74 | 31.49 | 32.09 | 32.67 | 31.85 | 32.12 | 32.16 | 32.11 |
| 32.05 | 31.55 | 31.28 | 32.09 | 31.96 | 32.11 | 32.18 | 32.09 |
| — | — | 32.25 | 31.98 | 32.23 | 32.21 | 32.14 | 32.34 |
| — | — | — | 32.34 | 32.34 | 32.32 | 32.27 | 32.16 |
| 32.07 | 31.56 | 32.36 | 32.27 | 32.21 | 32.34 | 32.38 | 32.05 |
| 40 | 35 | 55 | 60 | 60 | 63 | 69 | 70 |
| — | — | — | — | — | | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

| Month | | 12월(한 라 산) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| Day | | 21 | 21 | 22 | 22 | 22 | 22 | 22 | 22 |
| Item | Time / Z(m) | 1655 | 1915 | 1815 | 0950 | | 1310 | 1450 | 1630 |
| T ℃ | 0 | 6.98 | 6.97 | 6.98 | 7.04 | 7.10 | 7.15 | 7.33 | 5.90 |
| | 10 | 7.78 | 7.10 | 7.93 | 7.50 | 7.53 | 7.26 | 7.55 | 6.45 |
| | 20 | 7.71 | 6.95 | 7.97 | 7.54 | 7.55 | 7.67 | 7.65 | 6.25 |
| | 30 | — | — | 7.55 | 7.54 | 7.68 | 7.68 | 7.26 | 6.40 |
| | 50 | — | — | — | — | — | — | 7.39 | 6.86 |
| | Botm | 7.70 | 6.99 | 7.01 | 7.59 | 7.64 | 7.88 | 7.46 | 7.01 |
| S ‰ | 0 | 32.07 | 32.14 | 32.16 | 31.91 | 32.43 | 32.34 | 32.14 | 32.02 |
| | 10 | 31.83 | 32.21 | 32.09 | 32.05 | 32.34 | 32.43 | 32.16 | 32.14 |
| | 20 | 32.11 | 32.05 | 32.14 | 32.07 | 32.14 | 32.11 | 32.18 | 32.23 |
| | 30 | — | — | 31.94 | 31.98 | 32.16 | 32.66 | 32.16 | 32.09 |
| | 50 | — | — | — | — | — | — | 32.23 | 32.41 |
| | Botm | 32.09 | 32.21 | 32.02 | 32.34 | 32.14 | 32.32 | 32.14 | 32.12 |
| Depth(m) | | — | 35 | 54 | 61 | 56 | 58 | 66 | 76 |
| Water Trans. | | — | — | 3 | 3 | 4 | 4.5 | 5.5 | 6.2 |
| Water Color | | — | — | 4 | 4 | 4 | 4 | 3 | 3 |
| Wave | | 3 | 3 | 3 | 3 | 3 | — | 3 | 3 |
| Swell | | 3 | 3 | 3 | 3 | 3 | — | 4 | 4 |
| Air Temp. (°C) | | —0.5 | —0.1 | —0.2 | —0.2 | 1 | — | 1.5 | 1.2 |
| Baro. (mb) | | 1019.5 | 1020.5 | 1017.5 | 1015.1 | 1019.2 | — | 1021.5 | 1021.2 |
| Wind | | NW 3 | NW 3 | NW 3 | W 3 | NW 3 | NW 3 | NW 3 | NW 3 |
| Cloud | | Ns 9 | — | Ns 10 | Ns 9 | Ns 9 | — | Ns8 | Ns 9 |
| Weather | | C | — | C | C | C | — | C | C |

# 308선 해 양 관 측 성 적

## Oaenographic Data Line 308

| Month | | 5월 (창 파 호) | | | | | | | 6 월 (진 양 호) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 01 | 02 | 03 | 04 |
| Day | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 26 | 26 | 25 | 25 |
| Item | Time / Z(m) | | 1220 | 1430 | 1650 | 1900 | 2110 | 2330 | 0835 | 0650 | 0953 | 0808 |
| T ℃ | 0 | 10.00 | 11.28 | 10.00 | 9.80 | 10.78 | 10.78 | 9.50 | 21.02 | 18.62 | 22.52 | 23.52 |
| | 10 | 9.72 | 8.50 | 8.16 | 8.43 | 9.54 | 8.29 | 7.87 | 19.10 | 16.16 | 18.12 | 20.84 |
| | 20 | — | 7.83 | 6.96 | 7.76 | 8.02 | 6.89 | 6.66 | — | 12.62 | 16.44 | 16.35 |
| | 30 | — | — | 6.55 | 7.37 | 6.03 | 5.50 | 6.26 | — | — | 13.61 | 14.02 |
| | 50 | — | — | — | — | — | — | 5.49 | — | — | — | — |
| | Botm | 8.58 | 7.66 | 6.54 | 6.58 | 6.15 | 5.20 | 5.11 | 17.93 | 11.63 | 12.07 | 9.24 |
| T ℃ | 0 | 32.27 | 32.18 | 32.43 | 32.36 | 32.57 | 32.00 | 32.63 | 32.10 | 32.36 | 32.56 | 32.57 |
| | 10 | 31.91 | 32.38 | 32.54 | 32.07 | 32.57 | 32.66 | 32.59 | 32.10 | 32.48 | 32.48 | 32.52 |
| | 20 | — | 32.36 | — | 32.54 | 32.52 | 32.39 | 32.48 | — | 32.52 | 32.41 | 32.41 |
| | 30 | — | — | 32.20 | — | 32.54 | 32.69 | 32.63 | — | — | 32.33 | 32.45 |
| | 50 | — | — | — | — | — | — | 32.99 | — | — | — | — |
| | Botm | 31.92 | 32.54 | 32.47 | 32.11 | 32.54 | 32.66 | 33.51 | 32.09 | 31.98 | 32.48 | 32.58 |
| Depth(m) | | 24 | 30 | 52 | 50 | 54 | 51 | 70 | 20 | 30 | 50 | 51 |
| Water Trans. | | 4 | 7 | 5 | 4 | — | — | — | 6 | 6 | 10 | 11 |
| Water Color | | — | — | — | — | — | — | — | — | — | — | — |
| Wave | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 1 | 1 | 3 | 3 |
| Swell | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 3 |
| Air Temp. (°C) | | 13.5 | 12.5 | 12.7 | 12.6 | 11.6 | 11.2 | 9.7 | 23.5 | 21.1 | 21.5 | 20.8 |
| Baro. (mb) | | — | — | — | — | — | — | — | 1008.1 | 1007.5 | 1000.1 | 999.5 |
| Wind | | W 5 | W 5 | W 5 | W 5 | W 5 | W 5 | W 5 | NE 1 | NE 1 | NE 4 | NE 4 |
| Cloud | | As 2 | As 2 | As 2 | As 2 | As 2 | As 2 | As 2 | St 5 | St 6 | Ns 10 | Ns 10 |
| Weather | | B | B | B | B | B | B | B | BC | BC | C | C |

| Month | | 6월 (진양호) | | | | | 10월 (한라산호) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St . No. | | 05 | 06 | 07 | 08 | 09 | 06 | 05 | 04 | 03 | 02 | 01 |
| Day | | 25 | 25 | 25 | 25 | 24 | 4 | 4 | 4 | 4 | 5 | 5 |
| Item | Time / Z(m) | 0625 | 0430 | 0245 | 0100 | 2315 | 1830 | 1950 | 2110 | 2230 | 0805 | 0925 |
| T ℃ | 0 | 24.52 | 24.52 | 24.52 | 25.00 | 25.01 | 20.40 | 22.01 | 19.91 | 19.64 | 18.08 | 19.70 |
| | 10 | 19.15 | 23.23 | 21.10 | 23.51 | 23.54 | 19.98 | 20.58 | 18.91 | 19.29 | 18.13 | — |
| | 20 | 15.13 | 15.50 | 18.25 | 18.12 | 19.40 | 19.69 | 20.15 | 17.84 | 18.28 | — | — |
| | 30 | 9.99 | 8.99 | 6.08 | 8.40 | 7.47 | 15.47 | 18.46 | 14.69 | 17.87 | — | — |
| | 50 | — | — | 7.79 | 6.76 | 6.81 | 15.30 | — | — | — | — | — |
| | Botm | 8.51 | 7.88 | 7.37 | 6.69 | 6.78 | 16.28 | 12.64 | 14.60 | 18.13 | 18.14 | 19.43 |
| S ‰ | 0 | 32.56 | 32.29 | 32.26 | 31.87 | 32.07 | 32.22 | 32.74 | 32.38 | 32.38 | 32.41 | 32.39 |
| | 10 | 32.43 | 32.28 | 32.45 | 31.86 | 32.42 | 32.17 | 32.34 | 32.39 | 32.37 | 32.42 | — |
| | 20 | 32.58 | 32.60 | 32.48 | 32.33 | 32.29 | 32.32 | 32.31 | 32.53 | 32.47 | — | — |
| | 30 | 32.61 | 32.57 | 32.49 | 32.56 | 32.73 | 32.71 | 32.51 | 32.63 | 32.51 | — | — |
| | 50 | — | — | 32.51 | 32.58 | 32.29 | 32.73 | — | — | — | — | — |
| | Botm | 32.61 | 32.57 | 32.26 | 32.51 | 32.68 | 32.74 | 32.43 | 32.62 | 32.46 | 32.33 | 32.39 |
| Depth(m) | | 55 | 60 | 68 | 76 | 85 | 65 | 52 | 48 | 43 | 25 | 13 |
| Water Trans | | 9 | — | — | — | — | 20 | — | — | — | 3 | 2 |
| Water Color | | — | — | — | — | — | 3 | — | — | — | 5 | 5 |
| Wave | | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 2 |
| Swell | | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 1 | 1 | 1 |
| Air Temp. (°C) | | 19.6 | 19.5 | 20.4 | 21.5 | 22.6 | 17.7 | 19.4 | 18.5 | 18.4 | 18.9 | 19.0 |
| Baro. (mb) | | 999.4 | 999.4 | 999.4 | 999.3 | 999.3 | 1020.0 | 1020.0 | 1020.2 | 1019.5 | 1017.5 | 1017.7 |
| Wind | | NE 4 | NE 4 | SE 4 | SE 4 | SE 4 | NW 2 | NW 2 | NW 2 | NW 3 | N 3 | N 3 |
| Cloud | | Ns 10 | Ns 10 | Ns 10 | Ns 10 | Ns 10 | Ci 3 | Ci 2 | Ci 3 | Ci 4 | Cs 3 | Cs 3 |
| Weather | | C | C | C | C | BC | BC | BC | BC | BC | BC | BC |

10월(한 라 산)

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 1430 | 1310 | 1150 | 1030 | 0905 | 0740 | 0615 | 0450 | 0325 | 0200 |
| 17.35 | 17.68 | 17.77 | 17.27 | 16.72 | 17.12 | 17.44 | 17.56 | 17.88 | 17.63 |
| 17.12 | 17.01 | 17.72 | 17.37 | 16.75 | 17.12 | 17.28 | 17.53 | 17.36 | 17.56 |
| — | — | 16.92 | 16.81 | 16.75 | 17.11 | 17.32 | 17.54 | 17.47 | 17.64 |
| — | — | 16.76 | 16.22 | 15.77 | 13.67 | 15.29 | 17.48 | 17.32 | 17.58 |
| — | — | — | — | — | — | — | 17.11 | 11.08 | 15.66 |
| 17.00 | 16.51 | 16.20 | 15.58 | 14.93 | 13.49 | 14.31 | 13.33 | 10.54 | 12.95 |
| 32.20 | 32.20 | 32.25 | 32.45 | 32.39 | 32.23 | 32.41 | 32.50 | 32.54 | 32.56 |
| 32.20 | 32.20 | 32.27 | 32.43 | 32.39 | 32.09 | 32.45 | 32.54 | 32.55 | 32.54 |
| — | — | 32.30 | 32.41 | 32.38 | 32.36 | 32.56 | 32.56 | 32.53 | 32.52 |
| — | — | 32.25 | 32.38 | 32.43 | 32.63 | 32.56 | 32.56 | 32.53 | 32.54 |
| — | — | — | — | — | — | — | 32.58 | 32.77 | 32.46 |
| 32.20 | 32.21 | 32.29 | 32.34 | 32.43 | 32.48 | 32.81 | 32.54 | 32.85 | 32.70 |
| 20 | 28 | 42 | 47 | 50 | 56 | 65 | 75 | 78 | 81 |
| 3 | 3 | 4 | 6 | 7 | 5 | — | — | — | — |
| 6 | 6 | 5 | 5 | 5 | 6 | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | | | | — | — | — |
| — | — | — | — | — | — | — | | — | — |
| — | — | — | — | — | — | — | — | | |
| — | — | — | — | — | — | — | | | |
| — | — | — | — | — | — | — | — | | |

| Month | | 12월(한 라 산) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| Day | | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| Item | Time / Z(m) | 1600 | 1430 | 1255 | 1120 | 0945 | 0810 | 0630 | 0450 | 0310 | 0130 |
| T °C | 0 | 7.84 | 9.42 | 8.70 | 8.60 | 8.00 | 8.20 | 9.11 | 9.40 | 9.10 | 9.04 |
| | 10 | 8.15 | 9.51 | 9.47 | 9.42 | 9.22 | 9.08 | 9.25 | 9.35 | 9.01 | 8.92 |
| | 20 | — | 9.48 | 9.53 | 9.56 | 9.24 | 9.12 | 9.21 | 9.11 | 8.97 | 8.92 |
| | 30 | — | — | 9.53 | 9.54 | 9.25 | 9.05 | 9.26 | 9.36 | 8.97 | 8.91 |
| | 50 | — | — | — | — | — | — | 9.10 | 9.31 | 8.99 | 8.92 |
| | Botm | 8.16 | 9.01 | 9.54 | 9.53 | 9.24 | 9.12 | 9.06 | 9.38 | 8.95 | 8.86 |
| S ‰ | 0 | 32.27 | 31.85 | 32.11 | 32.14 | 32.09 | 31.92 | 31.21 | 32.45 | 32.34 | 32.34 |
| | 10 | 32.02 | 32.18 | 31.94 | 32.16 | 32.11 | 32.07 | 32.20 | 32.39 | 32.36 | 32.30 |
| | 20 | — | 31.85 | 32.21 | 32.16 | 31.96 | 32.03 | 32.11 | 32.41 | 32.36 | 32.27 |
| | 30 | — | — | 31.89 | 32.21 | 31.80 | 32.05 | 32.12 | 32.36 | 32.39 | 32.39 |
| | 50 | — | — | — | — | — | — | 32.07 | 32.34 | 32.39 | 32.27 |
| | Botm | 32.25 | 32.07 | 32.18 | 32.07 | 32.11 | 32.18 | 32.09 | 32.39 | 32.39 | 32.41 |
| Depth(m) | | 20 | 28 | 50 | 50 | 52 | 58 | 68 | 82 | 82 | 81 |
| Water Trans. | | 1.5 | 2 | 2 | 3.5 | 4.5 | 6.5 | — | — | — | — |
| Water Color | | 4 | 4 | 5 | 5 | 4 | 4 | — | — | — | — |
| Wave | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| Swell | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 |
| Air Temp. (°C) | | 7.5 | 8.0 | 7.9 | 6.3 | 5.1 | 5.9 | 5.5 | 5.4 | 5.3 | 5.3 |
| Baro. (mb) | | 1017.5 | 1020.5 | 1021.5 | 1021.5 | 1021.5 | 1022.0 | 1023.0 | 1022.5 | 1023.0 | 1025.0 |
| Wind | | NE 1 | NW 2 | NW 1 | NW 2 | NW 1 | NW 2 | NW 2 | NW 2 | N 2 | N 2 |
| Cloud | | Ns 4 | Ns 4 | Ci 3 | Ci 2 | Ns 4 | Ns 1 | — | — | — | — |
| Weather | | BC | BC | BC | B | BC | B | B | B | B | B |

# 309선 해 양 관 측 성 적

## Oceanographic Data, Line 309

| Month | | 4월 (창 파 호) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Day | | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Item | Time / Z(m) | 0910 | 1120 | 1330 | 1530 | 1740 | 1930 | 2200 | 2400 |
| T ℃ | 0 | 11.75 | 10.25 | 9.15 | [illegible] | [illegible] | [illegible] | [illegible] | 11.25 |
| | 10 | 10.38 | 8.24 | 7.37 | 7.53 | 7.52 | 9.45 | 7.38 | 6.67 |
| | 20 | 9.81 | 7.90 | 7.54 | 7.52 | 6.34 | 5.99 | 5.82 | 6.66 |
| | 30 | — | 7.79 | 8.33 | 6.61 | 7.94 | 5.92 | 6.07 | 5.62 |
| | 50 | — | — | — | — | 6.92 | 6.39 | 5.58 | 6.50 |
| | Botm | 9.77 | 7.83 | 7.17 | 6.60 | 6.19 | 5.90 | 5.53 | 5.73 |
| S ‰ | 0 | 31.04 | 32.29 | 32.57 | 32.56 | 32.81 | 32.86 | 32.86 | 32.70 |
| | 10 | 31.98 | 32.38 | 32.38 | 32.70 | 32.56 | 32.74 | 32.74 | 32.81 |
| | 20 | 32.03 | 32.29 | 32.61 | 32.68 | 32.81 | — | 32.92 | 32.90 |
| | 30 | — | 33.32 | 32.59 | 32.72 | 32.66 | 33.17 | 32.88 | 32.79 |
| | 50 | — | — | — | — | 31.04 | 32.95 | 32.38 | 33.01 |
| | Botm | 32.03 | 32.57 | 32.77 | 33.03 | 32.77 | — | 33.01 | 32.83 |
| Depth(m) | | 31 | 48 | 55 | 57 | 70 | 65 | 70 | 82 |
| Watert Trans. | | 1.5 | 3 | 4 | 6 | 8 | — | — | — |
| Water Color | | — | — | — | — | — | — | — | — |
| Wave | | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| Swell | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AirTemp. (°C) | | 12.2 | 14.0 | 15.5 | 14.5 | 14.0 | 13.1 | 12.1 | 11.0 |
| Baro. (mb) | | — | — | — | — | — | — | — | — |
| Wind | | NE 4 | NE 4 | NE 4 | NE 4 | NE 4 | NE 4 | NE 5 | NE 5 |
| Cloud | | St 6 | St 6 | St 6 | St 6 | St 6 | St 6 | St 6 | St 6 |
| Weather | | BC | BC | BC | BC | BC | BC | BC | BC |

| Month | | 6월 (진 양 호) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |
| Day | | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Item | Time / Z(m) | 0505 | 0641 | 0820 | 1000 | 1145 | 1330 | 1515 | 1700 | 1115 |
| T | 0 | 21.22 | 22.62 | 24.02 | 25.01 | 24.71 | 24.52 | 24.52 | 25.21 | 24.71 |
| | 10 | 17.95 | 19.09 | 17.62 | 23.22 | 22.61 | 23.84 | 22.48 | 22.38 | 23.71 |
| | 20 | 17.58 | 15.22 | 12.67 | 18.81 | 11.50 | 16.38 | 18.76 | 17.23 | 12.84 |
| | 30 | — | 15.11 | 12.30 | 11.47 | 9.30 | 8.93 | 8.67 | 6.90 | 6.86 |
| | 50 | — | — | — | — | 9.07 | 8.22 | 7.64 | 6.76 | 6.74 |
| | Botm | 17.47 | 15.03 | 12.10 | 10.30 | 9.01 | 8.01 | 7.44 | 6.76 | 6.69 |
| S | 0 | 32.13 | 32.31 | 32.53 | 32.46 | 32.36 | 32.34 | 32.28 | 32.32 | 32.22 |
| | 10 | 32.08 | 32.56 | 32.31 | 32.41 | 32.31 | 32.27 | 32.24 | 32.28 | 32.20 |
| | 20 | 32.08 | 32.36 | 32.75 | 32.75 | 32.76 | 32.60 | 32.49 | 32.40 | 32.61 |
| | 30 | — | 32.34 | 32.74 | 32.74 | 32.73 | 32.72 | 32.68 | 32.71 | 32.73 |
| | 50 | — | — | — | — | 32.92 | 32.71 | 32.69 | 32.71 | 32.73 |
| | Botm | 32.07 | 32.95 | 32.72 | 32.74 | 32.71 | 32.71 | 32.69 | 32.73 | 32.43 |
| Depth(m) | | — | 48 | 55 | 57 | 70 | 65 | 70 | 80 | 82 |
| Water Trans. | | — | 8 | 9 | 11 | 11 | 10 | 11 | 10 | 10 |
| Water Color | | — | — | — | — | — | — | - | — | - |
| Wave | | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| Swell | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Air Temp. (°C) | | 20.5 | 22.8 | 24.5 | 25.1 | 25.5 | 25.1 | 24.5 | 24.3 | 24.5 |
| Baro. (mb) | | 1005.7 | 1005.6 | 1005.9 | 1006.4 | 1006.3 | 1005.5 | 1004.5 | 1003.4 | 1002.5 |
| Wind | | SW 2 | SW 2 | SW 2 | SW 3 | SW 3 | SE 3 | SE 3 | SE 3 | SE 4 |
| Cloud | | St 8 | St 8 | St 8 | Ns 6 | Ns 6 | Ns 9 | Ns 9 | Ns 10 | Ns 10 |
| Weather | | C | C | C | BC | BC | C | C | C | C |

10월(한 라 산)

| 01 | 02 | 03 | 04 | 05 | 06 |
|---|---|---|---|---|---|
| 4 | 4 | 4 | 4 | 4 | 4 |
| 0815 | 0940 | 1045 | 1215 | 1345 | 1505 |
| 20.77 | 19.40 | 19.44 | 19.99 | 20.00 | 20.02 |
| 20.49 | 19.24 | 18.99 | 19.80 | 18.84 | 19.29 |
| — | 18.97 | 18.14 | 19.74 | 14.27 | 18.87 |
| — | — | — | 19.63 | 14.23 | 12.24 |
| — | — | — | — | 13.15 | 12.19 |
| 18.51 | 19.02 | 17.45 | 16.16 | 13.02 | 11.89 |
| 32.00 | 32.33 | 32.37 | 32.47 | 32.56 | 32.37 |
| 32.05 | 32.30 | 32.49 | — | — | 32.29 |
| — | — | 32.42 | 32.50 | 32.66 | 32.41 |
| — | — | — | 32.42 | 32.65 | 32.42 |
| | — | — | — | 32.70 | 32.70 |
| — | 32.53 | 32.34 | 32.56 | 32.67 | 32.72 |
| 22 | 32 | 38 | 47 | 65 | 67 |
| 3 | 7 | 12 | 21 | 21 | 20 |
| 5 | 5 | 5 | 4 | 3 | 3 |
| 2 | 2 | 2 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 19.0 | 18.0 | 18.5 | 19.3 | 18.9 | 20.9 |
| 1020.7 | 1020.7 | 1020.5 | 1020.1 | 1020.0 | 1020.0 |
| SE 2 | SE 2 | SE 2 | SE 2 | SE 2 | NW 2 |
| Cs 8 | Cs 8 | Cs 6 | Cs 5 | Ci 3 | Ci 3 |
| C | C | BC | BC | BC | BC |

| Month | | 10월(한 라 산) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| Day | | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Item | Time / Z(m) | 0940 | 1110 | 1235 | 1400 | 1525 | 1650 | 1815 | 1940 | 2105 | 2230 |
| T ℃ | 0 | 17.90 | 17.80 | 17.19 | 16.04 | 17.63 | 17.34 | 17.29 | 17.63 | 17.06 | 17.57 |
| | 10 | 17.31 | 17.77 | 17.20 | 16.62 | 17.51 | 17.29 | 17.39 | 17.48 | 17.52 | 17.62 |
| | 20 | 17.71 | 17.71 | 17.26 | 16.41 | 17.46 | 17.26 | 17.40 | 17.49 | 17.47 | 17.53 |
| | 30 | — | — | — | 15.71 | 17.10 | 17.21 | 17.40 | 17.38 | 17.42 | 17.57 |
| | 50 | — | — | — | — | — | 13.19 | 12.87 | 12.24 | 11.62 | 10.58 |
| | Botm | — | 17.66 | 17.38 | 15.70 | 14.15 | 12.58 | 11.57 | 11.50 | 10.26 | 8.21 |
| S ‰ | 0 | 32.47 | 32.43 | 32.61 | 32.47 | 32.57 | 32.50 | 32.58 | 32.65 | 32.56 | 32.57 |
| | 10 | 32.38 | 32.47 | 32.41 | 32.68 | 32.57 | 32.54 | 32.56 | 32.70 | 33.52 | 32.58 |
| | 20 | 32.47 | 32.45 | 32.11 | 32.57 | 32.54 | 32.58 | 32.58 | 32.65 | 32.41 | 32.52 |
| | 30 | — | — | — | 32.65 | 32.56 | 32.65 | 32.66 | 32.59 | 32.79 | 32.63 |
| | 50 | — | — | — | — | — | 32.83 | 32.83 | 32.86 | — | 32.96 |
| | Botm | — | 32.48 | 32.58 | 32.63 | 32.76 | 32.85 | 32.86 | 32.86 | 32.83 | 32.79 |
| Depth(m) | | 24 | 32 | 42 | 51 | 53 | 68 | 68 | 82 | 80 | 80 |
| Water Trans. | | 35 | 5 | 6 | 13 | 15 | 14 | — | — | — | |
| Water Color | | 7 | 6 | 5 | 4 | 3 | 3 | — | — | — | |
| Wave | | — | — | — | — | — | — | — | — | — | |
| Swell | | — | — | — | — | — | — | — | — | | |
| Air Temp. (°C) | | — | — | — | — | — | — | — | — | — | |
| Baro. (mb) | | — | — | — | — | — | — | — | — | | |
| Wind | | — | — | — | — | — | — | — | — | — | |
| Cloud | | | | | | | | | | | |
| Weather | | | | | — | — | — | — | — | — | |

12월 (한 라 산)

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| 0750 | 0925 | 1100 | 1235 | 1415 | 1555 | 1755 | 1915 | 2055 | 2235 |
| 8.20 | 9.10 | 8.90 | 9.00 | 9.15 | 9.12 | 9.53 | 9.20 | 8.84 | 9.15 |
| 7.64 | 9.15 | 9.65 | 9.66 | 9.52 | 9.30 | 9.45 | 9.10 | 9.00 | 8.37 |
| 8.05 | 9.18 | 9.71 | 9.65 | 9.55 | 9.40 | 9.50 | 9.11 | 8.97 | 8.92 |
| — | 9.09 | 9.66 | 9.70 | 9.66 | 9.53 | 9.53 | 9.90 | 8.93 | 8.44 |
| — | — | — | — | 9.57 | 9.35 | 9.12 | 9.10 | 8.93 | 8.92 |
| — | — | — | — | — | — | — | — | — | 8.84 |
| 7.81 | 9.12 | 9.72 | 9.66 | 9.51 | 9.53 | 9.50 | 9.04 | 8.87 | 8.90 |
| 32.45 | 32.56 | 32.45 | 32.38 | 32.30 | 32.48 | 32.50 | 32.38 | 32.50 | 32.47 |
| 32.30 | 32.45 | 32.41 | 32.27 | 32.23 | 32.36 | 32.43 | 32.50 | 32.39 | 32.38 |
| 32.39 | 32.39 | 32.38 | 32.29 | 32.27 | 32.41 | 32.47 | 32.50 | 32.47 | 32.36 |
| — | 32.52 | 32.48 | 32.43 | 32.36 | 32.47 | 32.43 | 32.45 | 32.45 | 32.39 |
| — | — | — | — | 32.49 | 32.41 | 32.47 | 32.39 | 32.36 | 32.43 |
| — | — | — | — | — | — | — | — | — | 32.39 |
| 32.41 | 32.50 | 32.36 | 32.34 | 32.50 | 32.38 | 32.50 | 32.41 | 32.45 | 32.43 |
| 29 | 45 | 54 | 57 | 69 | 64 | 66 | 82 | 82 | 88 |
| 4 | 4 | 6.5 | 7.5 | 8.3 | 9.2 | 10 | — | — | — |
| 5 | 4 | 4 | 3 | 3 | 3 | 3 | — | — | — |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5.2 | 5.4 | 5.3 | 6.0 | 6.3 | 6.4 | 6.0 | 5.7 | 5.4 | 5.4 |
| 1024.0 | 1024.0 | 1024.5 | 1024.8 | 1024.8 | 1025.5 | 1025.2 | 1025.5 | 1025.0 | 1025.0 |
| NE 2 | NE 2 | NE 2 | NE 1 | NE 1 | NE 2 | NE 2 | N 2 | NE 2 | N 2 |
| Ci 9 | Ci 8 | Ci 8 | Ci 7 | Ci 7 | Ci 8 | Ci 5 | Ci 2 | Ci 1 | — |
| C | C | C | BC | BC | C | BC | B | B | B |

# 310선 해 양 관 측 성 적

## Oceanographic Data, Line 310

| Month | | 4월 (창 파 호) | | | | | | 6월 (진 양 호) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | 03 | 04 | 05 | 06 | 07 | 08 | 03 | 04 | 05 |
| Day | | 25 | 25 | 24 | 24 | 24 | 24 | 23 | 23 | 23 |
| Item | Time / Z(m) | 0330 | 0130 | 2330 | 2120 | 1920 | 1720 | 0600 | 0415 | 0230 |
| T ℃ | 0 | 9.20 | 10.78 | 11.68 | 12.88 | 12.08 | 11.78 | 22.50 | 23.02 | 22.52 |
| | 10 | 8.10 | 7.29 | 9.79 | 8.12 | 8.58 | 8.08 | 22.42 | 21.38 | 21.46 |
| | 20 | 7.74 | 6.68 | 6.65 | 6.00 | 7.74 | 7.90 | 16.13 | 15.26 | 13.77 |
| | 30 | — | 6.46 | 6.57 | 6.12 | 6.55 | 6.89 | — | 10.27 | 10.44 |
| | 50 | — | — | 6.32 | 6.09 | 7.80 | 6.70 | — | — | 8.54 |
| | 75 | — | — | — | — | — | 6.57 | — | — | — |
| | Botm | 7.78 | 6.29 | 6.30 | 6.88 | 6.38 | 6.46 | 10.65 | 8.96 | 8.22 |
| S ‰ | 0 | 32.34 | 32.56 | 32.70 | 32.81 | 34.42 | — | 32.44 | 32.39 | 32.27 |
| | 10 | 32.61 | 32.63 | 32.92 | 32.83 | 32.90 | — | 32.42 | 32.34 | 32.19 |
| | 20 | 32.65 | 32.85 | 33.13 | 32.99 | 32.97 | — | 32.77 | 32.57 | 32.56 |
| | 30 | — | 32.77 | 33.19 | 33.10 | 32.97 | — | — | 32.92 | 32.95 |
| | 50 | — | — | 33.08 | 33.17 | — | 33.17 | — | — | 32.90 |
| | 75 | — | — | — | — | — | 33.17 | — | — | — |
| | Botm | 32.59 | 32.83 | 33.04 | 33.42 | 33.08 | 32.99 | 32.96 | 32.88 | 32.87 |
| Depth(m) | | — | 59 | 74 | 75 | 85 | 90 | 30 | — | — |
| Water Trans. | | — | — | — | — | 9 | 12 | — | — | — |
| Water Color | | — | — | — | — | — | — | — | — | — |
| Wave | | 0.2 | 0.2 | 0.5 | 0.6 | 0.6 | 0.6 | 2 | 2 | 2 |
| Swell | | 1 | 1 | 1 | 1 | 1 | — | 1 | 1 | 1 |
| Air Temp. (°C) | | 9.8 | 10.1 | 11.0 | 12.1 | 12.8 | 13.2 | 20.8 | 19.7 | 20.6 |
| Baro. (mb) | | — | — | — | — | — | — | 1009.5 | 1009.5 | 1009.5 |
| Wind | | NE 6 | NE 6 | NE 7 | NE 7 | NE 7 | NE 7 | SW 2 | SW 2 | SW 2 |
| Cloud | | St 7 | St 7 | Cu 10 | Cu 10 | Cu 10 | Cu 10 | Ci 3 | Ci 3 | Ci 3 |
| Weather | | BC | BC | C | C | C | C | BC | BC | BC |

| 6월 (진 양 호) | | | | 9월 (한라산호) | | | | |
|---|---|---|---|---|---|---|---|---|
| 06 | 07 | 08 | 09 | 07 | 06 | 05 | 04 | 03 |
| 23 | 22 | 22 | 22 | 30 | 30 | 30 | 30 | 30 |
| 0045 | 2300 | 2115 | 1930 | 1430 | 1600 | 1800 | 1930 | 2130 |
| 23.12 | 23.52 | 24.07 | 24.02 | 21.90 | 20.30 | 20.63 | 20.64 | 20.80 |
| 22.73 | 22.42 | 22.55 | 22.26 | 20.89 | 20.00 | 20.18 | 20.50 | 20.42 |
| 18.86 | 17.30 | 18.52 | 22.41 | 18.79 | 17.35 | 17.39 | 19.66 | 17.47 |
| 12.34 | 12.41 | 19.46 | 9.30 | 17.34 | 16.32 | 15.07 | 19.12 | 17.25 |
| 8.97 | 7.70 | 6.91 | 6.61 | 14.75 | 11.63 | 11.60 | 12.01 | 14.54 |
| — | — | 6.73 | 6.62 | — | — | — | — | — |
| 8.70 | 7.44 | 6.53 | 6.59 | 10.58 | 10.77 | 9.30 | 8.54 | 9.11 |
| 32.60 | 32.54 | 32.75 | — | 32.52 | 32.42 | 32.39 | 32.47 | — |
| 32.58 | 32.47 | 32.64 | 32.67 | 32.21 | 32.48 | 32.48 | 32.48 | 32.50 |
| 32.50 | 32.47 | 32.45 | — | 32.59 | 32.67 | — | 32.56 | 32.47 |
| 32.84 | 32.93 | 32.44 | 32.69 | 32.71 | 32.80 | 32.85 | 32.55 | 32.52 |
| 32.93 | 32.88 | 32.79 | 32.68 | 33.00 | 33.04 | 33.01 | 32.98 | 32.83 |
| — | — | 32.78 | — | — | — | — | — | — |
| 33.07 | 32.84 | 32.78 | 32.76 | 33.41 | 33.01 | 32.88 | 32.85 | 32.81 |
| 75 | 85 | 90 | 90 | 80 | 78 | 70 | 76 | 75 |
| — | — | — | 12 | 18 | 18 | 15 | 13 | |
| — | — | — | — | 3 | 4 | 4 | 4 | — |
| 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
| 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 |
| 21.2 | 23.2 | 23.5 | 24.3 | 21.3 | 21.5 | 21.3 | 21.0 | 20.0 |
| 1009.5 | 1009.5 | 1009.5 | 1009.5 | 1014.0 | 1014.0 | 1014.2 | 1014.0 | 1014.0 |
| SW 2 | SW 2 | SW 2 | SW 2 | N 4 | N 4 | N 4 | N 4 | N 4 |
| Ci 3 | Ci 2 | Ci 2 | Ci 3 | Cs 8 | Cs 8 | Ac 4 | Ac 5 | Cs 8 |
| BC | B | B | BC | C | C | BC | BC | C |

| Month | | 10월 (한 라 산) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| Day | | 23 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| Item | Time / Z(m) | 0050 | 2330 | 2200 | 2030 | 1900 | 1735 | 1615 | 1440 |
| T ℃ | 0 | 17.85 | 17.60 | 18.24 | 18.35 | 18.26 | 18.40 | 18.33 | 18.20 |
| | 10 | 17.41 | 17.77 | 18.31 | 18.39 | 18.31 | 18.01 | 18.26 | 18.21 |
| | 20 | 17.82 | 17.70 | 17.37 | 18.13 | 18.23 | 17.98 | 18.13 | 18.20 |
| | 30 | — | 15.96 | 17.38 | 17.90 | 18.22 | 17.85 | 17.93 | 18.14 |
| | 50 | — | — | 12.36 | 13.23 | 13.25 | 14.95 | 14.31 | 8.30 |
| | 75 | — | — | — | — | 10.77 | 10.71 | 8.20 | 8.20 |
| | Botm | 17.19 | 14.45 | 12.00 | 11.38 | 9.72 | 10.51 | 8.17 | 5.86 |
| S ‰ | 0 | 32.54 | 32.66 | 32.43 | 32.29 | 32.18 | 32.07 | 32.00 | 31.98 |
| | 10 | 32.57 | 32.68 | 32.39 | 32.14 | 32.23 | 31.98 | 31.98 | 31.94 |
| | 20 | 32.52 | 32.56 | 32.56 | 32.36 | 32.03 | 32.11 | 31.94 | 31.89 |
| | 30 | — | 32.77 | 32.72 | 32.65 | 32.72 | 32.47 | 32.16 | 32.00 |
| | 50 | — | — | 33.03 | 32.97 | 32.94 | 32.66 | 32.74 | 32.76 |
| | 75 | — | — | — | — | 32.97 | 32.95 | 32.70 | 32.70 |
| | Botm | 32.53 | 32.86 | 33.04 | 32.85 | 32.99 | 32.94 | 32.74 | 32.98 |
| Depth(m) | | 28 | 55 | 72 | 72 | 82 | 87 | 90 | 90 |
| Water Trans. | | — | — | — | — | — | — | 11 | 14 |
| Water Color | | — | — | — | — | — | — | 4 | 4 |
| Wave | | — | — | — | — | — | — | — | — |
| Swell | | — | — | — | — | — | — | | |
| Air Temp. (°C) | | — | — | — | — | — | — | — | — |
| Baro. (mb) | | | | | | | | | |
| Wind | | | | | | | | | |
| Cloud | | — | — | — | — | — | — | — | — |
| Weather | | — | — | — | — | — | — | — | — |

12월(한 라 산)

| 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|
| 17 | 17 | 17 | 16 | 16 | 16 | 16 | 16 |
| 0350 | 0215 | 0035 | 2255 | 2115 | 1935 | 1750 | 1605 |
| 9.42 | 9.51 | 9.68 | 9.77 | 9.92 | 10.00 | 9.25 | 10.01 |
| 10.02 | 10.02 | 10.02 | 10.10 | 10.26 | 10.36 | 10.05 | 10.06 |
| 10.12 | 10.15 | 10.00 | 10.10 | 10.27 | 10.47 | 10.03 | 10.06 |
| — | 10.14 | 10.14 | 10.06 | 10.26 | 10.27 | 9.79 | 9.77 |
| — | — | 10.15 | 10.12 | 10.42 | 10.46 | 10.02 | 10.11 |
| — | — | — | — | — | 10.41 | 10.08 | 10.12 |
| 10.07 | 10.00 | 10.10 | 10.09 | 10.37 | 10.21 | 10.03 | 10.10 |
| 32.63 | 32.50 | 32.36 | 32.47 | 32.83 | 32.81 | 32.74 | 32.77 |
| 32.48 | 32.32 | 32.38 | 32.43 | 32.72 | 32.72 | 32.76 | 32.85 |
| 32.16 | 32.48 | 32.47 | 32.61 | 32.70 | 32.74 | 32.79 | 32.70 |
| — | 32.45 | 32.50 | 32.63 | 32.63 | 32.81 | 32.83 | 32.74 |
| — | — | 32.68 | 32.63 | 32.77 | 32.63 | 32.85 | 32.72 |
| — | — | — | — | — | 32.77 | 32.81 | 32.70 |
| 32.29 | 32.54 | 32.50 | 32.48 | 32.76 | 32.68 | 32.81 | 32.77 |
| 27 | 53 | 71 | 72 | 82 | 87 | 93 | 93 |
| — | — | 7.1 | — | — | — | — | 4 |
| — | — | — | — | — | — | — | 3 |
| 2 | — | — | — | — | 3 | 3 | 3 |
| 2 | — | — | — | — | 2 | 3 | 3 |
| 4.0 | 4.0 | 4.1 | 4.5 | 4.6 | 4.7 | 5.2 | 4.9 |
| 1026.5 | 1026.5 | 1025.5 | 1026.0 | 1025.5 | 1026.0 | 1027.5 | 1028.0 |
| W 2 | W 2 | W 3 | W 3 | W 3 | W 3 | W 3 | W 3 |
| — | — | — | — | — | — | Ns 8 | Ns 7 |
| — | — | — | — | — | — | C | BC |

# 311선 해 양 관 측 성 적

## Oceanographic Data, Line 311

| Month | | 4월 (창 파 호) | | | | | | 6월 (진 양 호) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | 04 | 05 | 06 | 07 | 08 | 09 | 04 | 05 | 06 |
| Day | | 23 | 24 | 24 | 24 | 24 | 24 | 22 | 22 | 22 |
| Item | Time / Z(m) | 2230 | 0030 | 0730 | 1030 | 1240 | 1720 | 0515 | 0700 | 0845 |
| T ℃ | 0 | 11.28 | 8.10 | 10.10 | 11.68 | 11.38 | 11.78 | 21.01 | 21.81 | 18.72 |
| | 10 | 8.48 | 7.27 | 7.85 | 8.61 | 9.40 | 8.08 | 16.47 | 17.79 | 17.63 |
| | 20 | 7.83 | 7.14 | 7.17 | 6.69 | 8.15 | 7.90 | 16.09 | 14.46 | 18.04 |
| | 30 | — | 7.02 | 6.84 | 6.56 | 6.82 | 6.89 | — | 13.67 | 17.83 |
| | 50 | — | 6.98 | 6.98 | 6.66 | 7.09 | 6.70 | — | 14.25 | 13.37 |
| | 75 | — | — | 6.86 | 6.70 | 6.86 | 6.57 | — | — | 13.12 |
| | Botm | 8.18 | 7.00 | 6.76 | 6.61 | 6.82 | 6.46 | 16.02 | 14.12 | 12.73 |
| S ‰ | 0 | 33.03 | 33.12 | 32.90 | 33.06 | 32.99 | — | 33.09 | 33.33 | 32.74 |
| | 10 | 33.08 | 32.92 | 32.99 | 32.99 | 32.99 | — | 33.35 | 33.32 | 33.01 |
| | 20 | 33.62 | 32.99 | 32.92 | 33.15 | 33.15 | — | 33.37 | 33.17 | 33.02 |
| | 30 | — | 32.90 | 32.95 | 33.21 | 33.17 | — | — | 33.15 | 33.04 |
| | 50 | — | 32.99 | 33.21 | 33.17 | 33.17 | — | — | 33.27 | 33.04 |
| | 75 | — | — | 33.71 | 33.17 | 33.13 | — | — | — | 33.08 |
| | Botm | 33.28 | 32.92 | 33.17 | 33.08 | 33.10 | — | 33.43 | 33.29 | 33.05 |
| Depth(m) | | 35 | 76 | 94 | 93 | 92 | 90 | 35 | 75 | 94 |
| Water Trans. | | — | — | 5 | 9 | 9 | 12 | — | 5 | 7 |
| Water Color | | — | — | — | — | — | — | — | — | — |
| Wave | | 0.5 | 0.5 | 0.2 | 0.2 | 0.2 | 0.6 | 2 | 2 | 2 |
| Swell | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Air Temp. (°C) | | — | 10.5 | 11.0 | 14.2 | 14.9 | 13.2 | 19.5 | 21.5 | 22.4 |
| Baro. (mb) | | — | — | — | — | — | — | 1009.7 | 1009.7 | 1009.7 |
| Wind | | SW 5 | SW 5 | NW 1 | NW 1 | NW 2 | NE 7 | SE 1 | SE 1 | SE 2 |
| C loud | | St 4 | St 4 | St 5 | Cu 8 | Cu 8 | Cu 10 | St 10 | St 10 | St 8 |
| Weather | | BC | BC | BC | C | C | C | F | C | C |

| 6월 (진 양 호) | | | 9월 (한라산호) | | | |
|---|---|---|---|---|---|---|
| 07 | 08 | 09 | 04 | 05 | 06 | 07 |
| 22 | 22 | 22 | 28 | 28 | 30 | 30 |
| 1100 | 1245 | 1430 | 1610 | 1735 | 0715 | 0840 |
| 22.12 | 24.30 | 24.30 | 21.00 | 20.84 | 21.21 | 22.15 |
| 17.64 | 22.20 | 22.23 | 19.35 | 19.09 | 18.40 | 21.54 |
| 17.84 | 19.93 | 19.52 | 19.14 | 18.92 | 16.95 | 19.41 |
| 16.28 | 19.46 | 11.51 | — | 18.07 | 16.95 | 18.16 |
| 14.34 | 6.93 | 6.80 | — | 17.47 | 16.96 | 14.73 |
| 13.54 | 6.73 | 6.82 | — | — | — | — |
| 10.41 | 6.67 | 6.77 | 18.89 | 16.13 | 15.42 | 13.16 |
| 32.92 | 32.78 | 32.67 | 32.73 | 32.63 | 32.19 | 32.12 |
| 32.95 | 32.62 | 32.67 | 32.61 | 32.63 | 32.80 | 32.07 |
| 32.92 | 32.65 | 32.53 | 32.63 | 32.68 | 32.68 | 32.51 |
| 32.96 | 32.64 | 32.53 | — | 32.48 | 32.68 | 32.72 |
| 33.04 | 32.78 | 32.78 | — | 32.62 | 32.55 | 32.92 |
| 33.21 | 32.81 | 32.79 | — | — | — | — |
| 33.01 | 32.80 | 32.79 | 32.63 | 32.65 | 32.67 | 33.09 |
| 92 | 92 | 89 | 35 | 75 | 80 | 74 |
| 9 | 12 | 11 | 3 | 10 | 12 | 18 |
| — | — | — | 4 | 4 | 4 | 3 |
| 2 | 2 | 2 | 3 | 2 | 2 | 4 |
| 1 | 1 | 1 | 1 | 1 | 1 | 4 |
| 23.5 | 24.5 | 26.5 | 21.0 | 20.7 | 20.5 | 21.0 |
| 1009.7 | 1009.7 | 1009.7 | 1016.1 | 1016.1 | 1014.1 | 1014.0 |
| SE 2 | SE 2 | Sw 2 | N 3 | N 3 | N 3 | N 4 |
| As 6 | As 5 | Ci 4 | Ci 3 | Ci 2 | Ci 8 | Ci 8 |
| BC | BC | BC | BC | B | C | C |

| Month | | 10월(한 라 산) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| St. No. | | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| Day | | 20 | 20 | 21 | 21 | 22 | 22 | 22 |
| Item | Time / Z(m) | 1810 | 1935 | 0715 | 0840 | 0715 | 0845 | 1010 |
| T ℃ | 0 | 18.04 | 17.20 | 18.01 | 16.49 | 17.65 | 17.65 | 18.24 |
| | 10 | 17.20 | 16.69 | 17.92 | 17.20 | 17.69 | 17.53 | 18.42 |
| | 20 | 16.92 | 15.08 | 17.40 | 15.56 | 17.33 | 17.43 | 18.23 |
| | 30 | — | 15.93 | 15.99 | 14.21 | 17.11 | 16.62 | 18.38 |
| | 50 | — | 17.65 | 14.62 | 18.15 | 16.82 | 11.13 | 18.25 |
| | 75 | — | — | — | 17.72 | 13.21 | — | 15.82 |
| | Botm | 17.90 | 17.49 | 14.18 | 17.19 | 10.5 | 10.62 | 10.21 |
| S ‰ | 0 | 32.61 | 32.65 | 31.82 | 31.69 | 32.02 | 32.05 | 31.62 |
| | 10 | 32.61 | — | 31.96 | 32.59 | 32.16 | 32.09 | 31.64 |
| | 20 | 32.52 | 32.63 | 32.41 | 32.47 | 32.45 | 32.38 | 31.78 |
| | 30 | — | 32.63 | 32.59 | 32.27 | — | 32.45 | 31.62 |
| | 50 | — | — | 32.74 | 32.36 | 32.34 | 32.95 | 31.62 |
| | 75 | — | — | — | 32.56 | — | — | — |
| | Botm | 32.61 | — | 32.76 | 32.70 | 32.83 | 32.92 | 32.95 |
| Depth(m) | | 36 | 75 | 80 | 88 | 92 | — | 90 |
| Water Trans. | | 4 | — | 12 | 13 | 12 | — | 14 |
| Water Color | | 5 | — | 4 | 3 | 4 | — | 4 |
| Wave | | — | — | — | — | — | — | — |
| Swell | | — | — | — | | | | |
| Air Temp. (°C) | | — | — | — | | | | |
| Baro. (mb) | | — | — | | | | | |
| Wind | | — | — | — | | | | |
| Cloud | | — | — | | | | | |
| Weather | | — | — | | | | | |

12월(한 라 산)

| 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|
| 13 | 13 | 13 | 14 | 14 | 16 | 16 |
| 1740 | 1930 | 2105 | 0510 | 0655 | 0915 | 0110 |
| 8.81 | 11.14 | 10.85 | 10.35 | 9.92 | 9.72 | 9.75 |
| 8.77 | 12.22 | 11.02 | 10.44 | 9.17 | 10.12 | 10.12 |
| 8.83 | 10.73 | 11.04 | 10.50 | 10.29 | 10.17 | 10.34 |
| — | 10.72 | 11.04 | 10.44 | 10.27 | 9.78 | 10.14 |
| — | 10.66 | 10.85 | 10.49 | 10.24 | 10.32 | 10.18 |
| — | — | 10.86 | 10.51 | 10.15 | 10.51 | 10.44 |
| 8.34 | 10.70 | 10.84 | 10.46 | 10.21 | 10.57 | 10.68 |
| 32.32 | 32.41 | 32.57 | 32.45 | 32.63 | 32.76 | 32.54 |
| 32.39 | 32.50 | 32.52 | 32.57 | 32.77 | 32.63 | 32.81 |
| 32.30 | 32.41 | 32.41 | 32.57 | 32.63 | 32.70 | 32.79 |
| — | 32.54 | 32.54 | 32.59 | 32.76 | 32.72 | 32.70 |
| — | 32.59 | 32.50 | 32.50 | 32.61 | 32.74 | 32.65 |
| — | — | 32.43 | 32.68 | 32.76 | 32.61 | 32.59 |
| 32.21 | 32.50 | 32.66 | 32.66 | 32.81 | 32.68 | 32.74 |
| 34 | 75 | 90 | 90 | 92 | 89 | 84 |
| 1 | — | — | — | — | 4 | 4.5 |
| 6 | — | — | — | — | 3 | 3 |
| 2 | 2 | — | — | — | 3 | 3 |
| 2 | 2 | — | — | — | 3 | 3 |
| 5.2 | 4.9 | 4.7 | 5.1 | 5.1 | 5.2 | 5.5 |
| 1028.9 | 1024.1 | 1024.1 | 1027.5 | 1024.0 | 1028.1 | 1026.5 |
| W 3 | W 3 | W 3 | NW 4 | W 5 | W 3 | W 3 |
| Ns 7 | — | — | — | — | Ns 8 | Ns 7 |
| BC | B | — | — | — | C | BC |

# 312선 해 양 관 측 성 적

## Oceanographic Data, Line 312

| Month | | 4월 (창 파 호) | | | | | | | 6월 (북한산호) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 08 | 07 | 06 | 05 | 04 | 03 | 02 | 02 | 03 | 04 | 05 |
| Day | | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 29 | 29 | 29 | 29 |
| Item | Time / Z(m) | 0230 | 0450 | 0700 | 0920 | 1141 | 1300 | 1500 | 1240 | 1445 | 1625 | 1750 |
| T °C | 0 | 11.58 | 11.58 | 10.88 | 9.80 | 10.48 | 11.23 | 10.88 | 21.80 | 22.40 | 23.20 | 20.50 |
| | 10 | 10.45 | 10.51 | 10.14 | 8.09 | 8.30 | 9.95 | 10.89 | 20.21 | 21.27 | 20.78 | 20.20 |
| | 20 | 10.35 | 10.24 | 10.17 | 8.24 | 8.23 | 9.43 | 9.88 | 20.84 | 18.57 | 17.26 | 16.61 |
| | 30 | 10.38 | 10.29 | 10.12 | 8.29 | 8.19 | 9.63 | 9.81 | 12.34 | 14.62 | 12.61 | 11.34 |
| | 50 | 10.25 | 10.19 | 10.11 | 9.94 | 8.20 | 9.38 | 9.84 | 12.31 | — | 11.42 | 10.63 |
| | 75 | 9.91 | 10.08 | 9.94 | 9.98 | 8.13 | — | 9.90 | — | — | — | — |
| | Botm | 9.04 | 10.02 | 9.98 | 9.99 | 8.16 | 9.23 | 9.92 | 12.54 | 11.36 | 10.94 | 10.44 |
| S ‰ | 0 | 33.44 | 34.16 | 33.95 | 33.19 | 33.30 | 33.64 | 33.82 | 33.15 | 32.98 | 32.83 | 32.23 |
| | 10 | 33.53 | — | 33.96 | 33.28 | 33.28 | 33.62 | 33.89 | 33.35 | 32.95 | 32.79 | 32.88 |
| | 20 | 33.62 | 34.00 | 33.98 | 33.37 | — | 33.64 | 33.84 | 33.23 | 33.44 | 33.29 | 33.40 |
| | 30 | 33.95 | 34.07 | 33.95 | 33.12 | 33.35 | 33.62 | 33.82 | 33.22 | 33.88 | 34.05 | — |
| | 50 | 33.73 | 34.04 | — | 34.16 | 33.40 | 33.62 | 33.87 | 34.06 | — | 34.10 | 34.16 |
| | 75 | 34.16 | 34.13 | 34.16 | 33.87 | 33.44 | — | 33.84 | — | — | — | — |
| | Botm | 34.16 | 34.07 | 34.16 | 34.15 | 33.39 | 33.53 | 33.86 | 34.24 | 34.24 | 34.13 | 34.20 |
| Depth(m) | | 97 | 94 | 101 | 96 | 82 | 75 | 90 | 74 | 66 | 72 | 72 |
| Water Trans. | | — | — | 11 | 4 | 5 | 3 | 2 | 19 | 20 | 17 | 13 |
| Water Color | | — | — | — | — | — | — | — | 3 | 3 | 3 | 3 |
| Wave | | 0.2 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | SE 3 | SE 3 | SE 4 | SE 3 |
| Swell | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | SE 1 | SE 2 | SE 3 | SE 2 |
| Air Temp. (°C) | | 12.2 | 10.7 | 9.6 | 9.5 | 9.9 | 12.7 | 10.2 | 22.5 | 22.4 | 24.1 | 23.5 |
| Baro. (mb) | | — | — | — | — | — | — | — | 1012.0 | 1012.0 | 1014.0 | 1015.0 |
| Wind | | NNW 4 | N 4 | N 4 | N 5 | N 5 | N 5 | N 5 | SE 3 | SE 3 | SE 4 | SE |
| Cloud | | — | Cu 8 | Cu 8 | St 4 | St 4 | St 4 | St 4 | St 3 | St 4 | St 8 | St 9 |
| Weather | | C | C | C | BC | BC | BC | BC | BC | BC | C | C |

| 6월 (북 한 산) | | | | 10월(한 라 산) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 06 | 07 | 08 | 09 | 10 | 09 | 08 | 07 | 06 | 05 | 04 |
| 29 | 30 | 30 | 30 | 19 | 20 | 20 | 20 | 20 | 20 | 20 |
| 1925 | 0540 | 0705 | 0840 | 2400 | 0130 | 0300 | 0430 | 0555 | 0725 | 0900 |
| 21.00 | 21.00 | 21.50 | 21.80 | 19.20 | 17.26 | 16.53 | 17.87 | 17.72 | 17.55 | 18.88 |
| 20.25 | 20.92 | 20.70 | 20.90 | 18.74 | 12.35 | 14.15 | 17.59 | 16.24 | 17.07 | 18.77 |
| 19.50 | 14.20 | 12.47 | 14.62 | 11.66 | 11.46 | 12.87 | 13.81 | 13.30 | 12.98 | 13.75 |
| 12.50 | 12.61 | 12.15 | 11.23 | 10.33 | 11.53 | 12.64 | 11.73 | 13.37 | 11.99 | 13.59 |
| 11.32 | 10.71 | 10.75 | 12.50 | 10.76 | 18.09 | 18.40 | 17.80 | 17.89 | 17.28 | 18.77 |
| 10.54 | 10.47 | — | 10.64 | 21.07 | 13.67 | 18.35 | 18.14 | 17.87 | — | — |
| 10.55 | 10.35 | 10.46 | 10.47 | 19.31 | 18.55 | 17.62 | 18.80 | 17.58 | 17.34 | 18.91 |
| 32.79 | 34.05 | 33.93 | 34.63 | 32.23 | 32.30 | 32.23 | 32.57 | 32.57 | 32.70 | 32.70 |
| 32.87 | 31.63 | 34.03 | 31.41 | — | 32.25 | 32.30 | 32.57 | 32.45 | 32.66 | 32.72 |
| 33.06 | 33.70 | 34.91 | 33.62 | 32.29 | 31.55 | 32.65 | 32.63 | 32.30 | 32.59 | 32.70 |
| 33.97 | 33.92 | 34.11 | 34.05 | 32.30 | 32.70 | 32.74 | 32.59 | 32.63 | 32.70 | 32.59 |
| 34.09 | 34.13 | 34.15 | 33.94 | 33.76 | 33.19 | 32.97 | 32.63 | 32.88 | 33.28 | 33.40 |
| 34.16 | 34.15 | — | 34.13 | 33.13 | 33.12 | 33.06 | 33.06 | 33.42 | — | — |
| 34.17 | 34.18 | 34.09 | 34.15 | 32.12 | 33.06 | 33.17 | 33.08 | 33.39 | 32.77 | 33.44 |
| 94 | 95 | 80 | 84 | 83 | 86 | 90 | 91 | 93 | 70 | 80 |
| 14 | 10 | 15 | 15 | — | — | — | — | — | — | 16 |
| 3 | — | 3 | 3 | — | — | — | — | — | — | 3 |
| SE 2 | E 4 | E 4 | 5 | — | — | — | — | — | — | — |
| SE 1 | 2 | 2 | 5 | — | — | — | — | — | — | — |
| 20.3 | 21.0 | 22.1 | 22.0 | — | — | — | — | — | — | — |
| 1015.0 | 1017.0 | 1017.0 | 1017.0 | — | — | — | — | — | — | — |
| S E | E 4 | E 4 | E 5 | — | — | — | — | — | — | — |
| St 9 | St 10 | St 10 | St 10 | | — | — | — | — | — | — |
| C | C | C | C | — | — | — | — | — | — | — |

| Month | | 12월(한 라 산) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 03 | 02 | 10 | 09 | 08 | 07 | 06 | 05 | 04 | 03 | 02 |
| Day | | 20 | 20 | 12 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| Item | Time / Z(m) | 1030 | 1200 | 2315 | 0045 | 0215 | 0345 | 0520 | 0655 | 0830 | 1000 | 1130 |
| T ℃ | 0 | 16.89 | 17.96 | 14.44 | 13.32 | 11.56 | 11.33 | 8.47 | 11.24 | 9.64 | 9.06 | 9.97 |
| | 10 | 16.72 | 12.92 | 14.78 | 14.51 | 11.99 | 11.42 | 8.93 | 11.28 | 10.99 | 9.35 | 10.03 |
| | 20 | 14.88 | 17.11 | 14.75 | 14.43 | 12.02 | 11.36 | 8.10 | 11.50 | 10.88 | 9.35 | 9.75 |
| | 30 | 13.61 | 15.84 | 14.82 | 14.72 | 12.03 | 11.27 | 10.93 | 11.54 | 10.92 | 9.31 | 9.80 |
| | 50 | 17.75 | 13.87 | 14.88 | 14.58 | 12.02 | 11.40 | 11.86 | 14.00 | 11.23 | 9.37 | 9.77 |
| | 75 | — | 13.63 | — | — | 12.01 | 11.44 | 11.84 | 13.26 | — | — | 9.90 |
| | Botm | 17.39 | 13.59 | 14.63 | 14.43 | 11.85 | 11.34 | 11.52 | 12.23 | 11.43 | 9.39 | 9.86 |
| S ‰ | 0 | 32.52 | 32.05 | 32.92 | 33.03 | 32.74 | 32.68 | 32.63 | 32.65 | 32.41 | 32.29 | 32.36 |
| | 10 | 32.83 | 32.09 | 33.19 | 33.17 | 32.59 | 32.59 | 32.63 | 32.48 | 32.41 | 32.45 | 32.39 |
| | 20 | 32.90 | 32.64 | 33.39 | 33.24 | 32.88 | 32.56 | 32.72 | 32.61 | 32.48 | 32.50 | 32.34 |
| | 30 | 32.88 | 32.88 | 33.22 | 33.13 | 32.86 | 32.72 | 32.74 | 32.39 | 32.56 | 32.43 | 32.50 |
| | 50 | 33.13 | 33.50 | 33.33 | 33.28 | 32.81 | 32.16 | 32.65 | 32.63 | 32.52 | 32.43 | 32.30 |
| | 75 | — | 33.59 | — | — | 32.83 | 32.52 | 32.79 | 32.63 | — | — | 32.41 |
| | Botm | 33.62 | 33.42 | 33.28 | 33.13 | 32.81 | 32.61 | 32.74 | 32.65 | 32.54 | 32.36 | 32.48 |
| Depth(m) | | 75 | 86 | 79 | 83 | 90 | 92 | 103 | 92 | 79 | 73 | 86 |
| Water Trans. | | 11 | 16 | — | — | — | — | — | 5 | 3 | 2 | 15 |
| Water Color | | 4 | 4 | — | — | — | — | — | 4 | 2 | 6 | 5 |
| Wave | | — | — | — | — | — | — | — | 3 | 2 | 2 | 2 |
| Swell | | — | — | — | — | — | — | — | 2 | 2 | 2 | 2 |
| Air Temp. (°C) | | — | — | 6.1 | 5.9 | 5.6 | 5.4 | 5.4 | 5.4 | 5.4 | 5.5 | 6.1 |
| Baro. (mb) | | — | — | 1027.1 | 1027.3 | 1030.1 | 1030.1 | 1030.5 | 1029.7 | 1027.9 | 1027.9 | 1027.9 |
| Wind | | — | — | NW 3 | NW 3 | NW 4 | NW 3 | NW 4 | NW 4 | NW 3 | NW 3 | NW 3 |
| Cloud | | — | — | — | — | — | — | — | Ns 9 | Ns 8 | Ns 8 | Ns 8 |
| Weather | | — | — | — | — | — | — | — | C | C | C | C |

# 제 4 편

# 진해만 해양 관측 성적

(수온. 염분. 산소. 인산염. 질산염. 규산염. pH. 및 기상관측)

# PART 4

# OCEANOGRAPHIC OBSERVATIONS CHINHAE BAY

(Temperature, Salinity, Oxygen. $PO_4$-P. $NO_2$-N.
$SiO_2$-Si. pH and the Meterological Data)

1967

# 차 례

진해만 관측점 위치도 ····· 415
진해만 관측점 위치표 ····· 416
1월 해양조사성적 ····· 417
2월 해양조사성적 ····· 425
3월 해양조사성적 ····· 435
4월 해양조사성적 ····· 445
5월 해양조사성적 ····· 456
6월 해양조사성적 ····· 465
7월 해양조사성적 ····· 475
8월 해양조사성적 ····· 484
9월 해양조사성적 ····· 494
10월 해양조사성적 ····· 504
11월 해양조사성적 ····· 514
12월 해양조사성적 ····· 525

# CONTENTS

Location of the Chin Hae bay Station ····· 415

Position of the Chin Hae bay Stations ····· 416

1. Oceanographic Observations, January ····· 417
2. Oceanographic Observations, Febrauary ····· 425
3. Oceanographic Observations, Macrh ····· 435
4. Oceanographic Observations, April ····· 445
5. Oceanographic Observations, May ····· 456
6. Oceanographic Observations, June ····· 465
7. Oceanographic Observations, July ····· 475
8. Oceanographic Observations, August ····· 484
9. Oceanographic Observations, September ····· 494
10. Oceanographic Observations, October ····· 504
11. Oceanographic Observations, November ····· 514
12. Oceanographic Observations, December ····· 525

MASAN
CHINHAE
CHANNEL

# 진해만 위치표

| | | |
|---|---|---|
| C 1 | N | 35° 1′ 40″ |
| | E | 129° 01′ |
| C 2 | N | 35° 00′ |
| | E | 128° 55′ |
| C 3 | N | 34° 56′ 40″ |
| | E | 128° 49′ 45″ |
| C 4 | N | 35° 02′ |
| | E | 128° 46′ 15″ |
| C 5 | N | 35° 03′ |
| | E | 128° 39′ 15″ |
| C 6 | N | 35° 02′ 45″ |
| | E | 128° 31′ 4″ |
| C 7 | N | 35° 00′ |
| | E | 128° 33′ |
| C 8 | N | 34° 56′ 35″ |
| | E | 128° 33′ 40″ |
| C 9 | N | 34° 55′ 15″ |
| | E | 128° 30′ |
| C 10 | N | 34° 51′ |
| | E | 128° 17″ |
| C 11 | N | 34° 51′ 30″ |
| | E | 128° 6′ 15″ |
| C 12 | N | 34° 56′ 45″ |
| | E | 128° 00′ 30″ |
| C 13 | N | 34° 53′ 40″ |
| | E | 127° 57′ 40″ |
| C 14 | N | 34° 56′ 40″ |
| | E | 127° 55′ 30″ |
| C 15 | N | 34° 50′ 30″ |
| | E | 127° 47′ 30″ |
| C 16 | N | 34° 42′ 40″ |
| | E | 127° 49′ 30″ |
| C 17 | E | 34° 41′ 20″ |
| | E | 127° 56′ 00″ |
| C 18 | N | 34° 41′ 45″ |
| | E | 128° 7′ 10″ |
| C 19 | N | 34° 35′ 10″ |
| | E | 128° 14′ 30″ |
| C 20 | N | 34° 34′ |
| | E | 128° 23′ |
| C 21 | N | 34° 37′ |
| | E | 128° 34′ 40″ |
| C 22 | N | 34° 44′ 15″ |
| | E | 128° 43′ |
| C 23 | N | 34° 50′ 00″ |
| | E | 128° 51′ 15″ |
| C 24 | N | 34° 55′ 45″ |
| | E | 129° 1′ 30″ |
| C 25 | N | 35° 1′ 15″ |
| | E | 129° 4′ 00″ |

# C선 해 양 관 측 성 적

## Oceanographic Data, Line C

1월(January) 조사선(Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C1 | 13 | 0830 | 29 | 4 | 3 | ENE 3 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 5 | 1033 | 5.0 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.00 | 34.36 | — | — | — | — | |
| 10 | 9.54 | 34.38 | 5.86 | 0.18 | 0.10 | 21.81 | |
| 20 | 12.87 | — | 5.86 | 0.15 | 0.03 | 26.17 | |
| 25 | 12.93 | 34.35 | 5.78 | — | — | — | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C2 | 13 | 0920 | 31 | 4 | 4 | NNE 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | 1033 | 6.1 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.20 | 34.34 | 5.96 | 0.21 | 0.16 | 19.63 | 8.03 |
| 10 | 10.32 | 34.31 | 5.92 | 0.29 | 0.14 | 24.72 | 8.15 |
| 20 | 12.17 | 34.27 | 5.86 | — | — | 21.08 | 8.15 |
| 28 | 11.95 | 34.27 | 6.00 | 0.17 | 0.03 | 23.26 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C3 | 13 | 1010 | 30 | 4 | 4 | SW 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1033 | 7.0 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.22 | 34.39 | 5.80 | 0.25 | 0.19 | 29.08 | 8.20 |
| 10 | 11.36 | 34.40 | 5.84 | 0.24 | 0.05 | 26.90 | 8.25 |
| 20 | 13.01 | 34.37 | 5.65 | 0.18 | 0.03 | 21.81 | 8.26 |
| 27 | 12.60 | 34.32 | 5.86 | 0.10 | 0.02 | 21.08 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C4 | 13 | 1055 | 24 | 8 | 5 | WS W 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1033 | 4.7 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 9.50 | 34.04 | — | 0.68 | 0.06 | 19.63 | 8.32 |
| 10 | 6.59 | 33.94 | 6.41 | 0.57 | 0.03 | 18.18 | 8.32 |
| 20 | 8.67 | 33.92 | 6.47 | 0.28 | 0.06 | 17.45 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C5 | 13 | 1155 | 21 | 8 | 4 | Sw 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1033 | 5.8 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 8.50 | 33.78 | 6.84 | 0.27 | 0.03 | 14.54 | 8.33 |
| 10 | 6.90 | 33.83 | 6.97 | 0.97 | 0.02 | 16.17 | 8.35 |
| 18 | 8.34 | 33.84 | 6.68 | 0.27 | 0.03 | 18.18 | 8.37 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C6 | 13 | 1240 | 18 | 4 | 11 | SW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1033 | 6.4 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.90 | 32.91 | 7.05 | 0.57 | 0.02 | 14.54 | 8.34 |
| 10 | 5.35 | — | 6.91 | 0.39 | 0.02 | 12.36 | 8.41 |
| 15 | 5.45 | 32.97 | 6.60 | 0.28 | 0.02 | 16.72 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C7 | 13 | 1310 | 25 | 3 | 16 | SW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1033 | 6.4 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO^4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μ-gat/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.90 | 33.00 | 6.99 | 0.29 | 0.10 | 13.81 | 8.37 |
| 10 | 5.39 | 33.02 | 7.07 | 0.38 | 0.08 | 10.91 | 8.36 |
| 23 | 5.47 | 33.02 | 7.05 | 0.29 | 0.07 | 13.09 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C8 | 13 | 1340 | 22 | 4 | 15 | SSW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 10 | 1033 | 6.6 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.90 | 32.94 | 7.01 | 0.10 | 0.18 | 15.27 | 8.32 |
| 10 | 5.64 | 32.92 | 6.95 | 0.10 | 0.15 | 12.36 | 8.39 |
| 20 | 5.62 | 32.91 | 6.92 | 0.28 | 0.14 | 10.91 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C9 | 13 | 1410 | 13 | 5 | 13 | W 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1033 | 6.6 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.80 | 33.08 | 7.09 | — | — | — | 8.30 |
| 10 | 6.01 | 33.19 | 7.09 | 0.28 | 0.10 | 13.81 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C10 | 14 | 0830 | 12 | 6 | 5 | NNE 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1043 | 3.6 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.80 | 33.59 | 9.21 | 0.20 | 0.23 | 10.18 | 8.30 |
| 10 | 5.57 | 33.62 | 7.25 | 0.45 | 0.18 | 20.36 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C11 | 14 | 0935 | 30 | 8 | 4 | NNW 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1045 | 2.2 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 10.80 | 34.21 | 6.08 | 0.30 | 0.04 | 18.18 | — |
| 10 | 8.24 | 34.18 | 6.06 | 0.07 | 0.04 | 18.90 | 8.27 |
| 20 | 10.68 | 34.18 | 6.06 | 0.24 | 0.02 | 23.26 | 8.27 |
| 27 | 10.85 | 34.25 | 6.06 | 0.15 | 0.06 | 19.63 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C12 | 14 | 1015 | 29 | 6 | 5 | NNW 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1044 | 0.0 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 10.20 | 34.11 | 6.29 | 0.18 | 0.12 | 19.36 | 8.30 |
| 10 | 9.02 | 34.09 | 6.53 | 0.34 | 0.19 | 10.91 | — |
| 20 | 9.67 | 34.08 | 6.37 | 0.42 | 0.18 | 15.99 | 8.32 |
| 26 | 9.69 | 34.05 | 6.41 | 0.48 | 0.02 | 24.72 | 8.34 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C18 | 14 | 1105 | 32 | 6 | 5 | N 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1043 | 1.3 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 10.00 | 34.08 | 6.47 | — | — | 29.08 | 8.30 |
| 10 | 9.02 | 34.67 | 6.47 | 0.20 | 0.09 | 20.36 | 8.30 |
| 20 | 9.49 | 34.07 | 6.37 | 0.20 | 0.06 | 10.18 | 8.34 |
| 30 | 9.83 | 34.07 | 6.37 | 0.20 | 0.06 | 19.63 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C19 | 14 | 1215 | 59 | 7 | 6 | ENE 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 3 | 1042 | —0.7 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.20 | 34.19 | 6.06 | 0.43 | 0.11 | 14.54 | 8.06 |
| 10 | 10.78 | 34.15 | 6.04 | 0.27 | 0.18 | 14.54 | 8.06 |
| 20 | 10.58 | 34.12 | 5.98 | 0.46 | 0.15 | 18.90 | 8.12 |
| 30 | 10.52 | 34.12 | 5.06 | 0.45 | 0.14 | 19.62 | 8.10 |
| 50 | 8.28 | 34.16 | 6.06 | 0.21 | 0.12 | 19.62 | 8.10 |
| 56 | 10.93 | 34.16 | 5.79 | 0.07 | 0.16 | 18.90 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C20 | 14 | 1320 | 42 | 6 | 6 | NNE 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 4 | 1041.3 | 10.8 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.90 | 34.33 | 6.29 | 0.35 | — | 34.17 | 8.18 |
| 10 | 11.71 | 34.37 | 6.26 | 0.53 | — | 33.40 | 8.16 |
| 20 | 11.51 | 34.37 | 5.52 | 0.5 | — | 29.08 | 8.20 |
| 30 | 11.50 | 34.37 | 5.88 | 0.46 | — | 29.08 | 8.21 |
| 40 | 11.44 | 34.37 | 5.96 | 0.34 | — | 29.08 | 8.16 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C21 | 17 | 0900 | 60 | 5 | 7 | SW 2 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1035 | 1.5 | | Ac | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.60 | 34.33 | 5.67 | 0.21 | 0.35 | 21.08 | 7.98 |
| 10 | 10.73 | 34.33 | 5.79 | 0.48 | 0.21 | 14.54 | 8.05 |
| 20 | 12.01 | 34.32 | 5.91 | 0.49 | 0.16 | 22.54 | 8.15 |
| 30 | 12.05 | 34.33 | 6.10 | 0.59 | 0.31 | 19.49 | 8.08 |
| 50 | 12.07 | 34.34 | 5.84 | 0.50 | 0.26 | 24.72 | 8.01 |
| 57 | 12.04 | 34.30 | 5.84 | 0.62 | 0.07 | 19.63 | 7.93 |

| St No. | Date | Time | Depth | Water Color | Watar Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C22 | 19 | 0930 | 56 | 6 | 8 | WSW 2 | WSW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1033 | 8.6 | | Cc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.20 | 34.37 | 5.96 | 0.34 | 0.37 | 12.36 | 8.12 |
| 10 | 11.43 | 34.35 | 5.96 | 0.21 | 0.42 | 10.18 | 8.15 |
| 20 | 12.57 | 34.37 | 5.94 | 0.63 | 0.41 | 8.72 | 8.20 |
| 30 | 12.58 | 34.38 | 5.84 | 0.45 | 0.35 | 10.91 | 8.11 |
| 50 | 11.83 | 34.33 | 5.84 | 0.53 | 0.33 | 22.54 | 8.18 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C23 | 19 | 1045 | 50 | 5 | 10 | WSW 2 | WSW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1033 | 6.5 | | Cs | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO^4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.90 | 34.35 | 5.86 | 0.39 | 0.46 | 12.36 | 8.17 |
| 10 | 11.39 | 34.34 | 6.06 | 0.42 | 0.40 | 13.81 | 8.15 |
| 20 | 12.85 | 34.34 | 5.98 | 0.32 | 0.40 | 16.72 | 8.10 |
| 30 | 12.92 | 34.34 | 6.14 | 0.24 | 0.44 | 18.18 | 8.02 |
| 50 | 12.74 | 34.33 | — | — | — | — | 8.05 |
| 47 | 12.67 | 34.34 | 5.96 | 0.42 | 0.26 | 15.29 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C24 | 19 | 1210 | 65 | 5 | 10 | WSW 3 | WSW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1033 | 6.9 | | Cs | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.20 | 34.34 | 5.79 | 0.16 | 0.32 | 15.27 | 8.19 |
| 10 | 12.39 | 34.33 | 5.86 | 0.14 | 0.33 | 12.36 | 8.15 |
| 20 | 12.84 | 34.33 | 5.75 | — | — | — | 8.19 |
| 30 | 12.86 | 34.33 | 6.10 | 0.14 | — | 11.64 | 8.19 |
| 50 | 12.77 | 34.33 | 5.96 | — | — | 32.72 | 8.19 |
| 60 | 12.63 | 34.32 | 5.86 | 0.18 | — | 34.80 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C25 | 19 | 1255 | 62 | 6 | 8 | WSW 2 | WSW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 3 | 1032 | 7.5 | | Cs | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.30 | 34.33 | 5.86 | 0.35 | — | 34.17 | 8.18 |
| 10 | 11.84 | 34.37 | 5.96 | 0.53 | — | 33.44 | 8.16 |
| 20 | 12.11 | 34.37 | 5.73 | 0.50 | — | 28.35 | 8.20 |
| 30 | 12.09 | 34.37 | 5.86 | 0.46 | — | 29.08 | 8.21 |
| 50 | 11.98 | 34.37 | 5.75 | 0.42 | — | 29.08 | 8.19 |
| 60 | 11.78 | 34.37 | 5.86 | 0.34 | — | 29.81 | 8.16 |

2월(February) 조사선 (Hwaug Gyung Ho)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 3 | 8 | 1750 | 33 | | | NW 1 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1019 | 6.1 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.60 | 34.37 | 6.51 | 0.29 | 0.25 | 106.87 | 8.40 |
| 10 | 11.30 | 34.37 | 6.55 | 0.29 | 0.20 | 37.80 | 8.39 |
| 20 | 11.16 | 34.31 | 6.57 | 0.22 | 0.18 | 53.80 | 8.39 |
| 30 | 9.45 | 34.13 | 6.38 | 0.18 | 0.13 | 46.53 | 8.39 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4 | 8 | 1655 | 16 | | 5 | SW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1019 | 5.3 | | | | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 9.00 | 34.07 | 7.38 | 0.22 | 0.26 | 113.41 | 8.38 |
| 10 | 7.69 | 33.98 | 7.34 | 0.31 | 0.18 | 77.79 | 8.40 |
| 14 | 7.40 | 33.84 | 7.38 | 0.24 | 0.17 | 62.52 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 5 | 8 | 1550 | 42 | | | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1018 | 4.8 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 6.2 | 33.46 | 7.33 | 0.20 | 0.10 | 37.80 | 8.38 |
| 10 | 6.12 | 33.60 | 6.97 | 0.18 | 0.08 | 29.81 | 8.39 |
| 20 | 5.94 | 33.59 | 7.42 | 0.10 | 0.08 | 19.63 | 8.40 |
| 30 | 6.24 | 33.63 | 7.33 | 0.29 | 0.10 | 70.52 | 8.39 |
| 38 | 6.34 | 33.67 | 7.33 | 0.17 | 0.13 | 31.99 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 6 | 8 | 1440 | 18 | | 8 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1018 | 4 6 | | | | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.40 | 33.18 | 7.43 | 0.41 | 0.09 | 29.08 | 8.39 |
| 10 | 4.77 | 33.19 | 7.34 | 0.27 | 0.11 | 44.35 | 8.35 |
| 15 | 5.47 | 33.46 | 7.12 | 0.28 | — | 64.70 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 7 | 8 | 1400 | 23 | | 11 | SW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1022 | 4.3 | | | | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.20 | 33.07 | 7.29 | 0.13 | 0.09 | 59.61 | 8.37 |
| 10 | 4.94 | 33.27 | 7.39 | 0.31 | 0.11 | 14.54 | 8.37 |
| 20 | 5.46 | 33.42 | 7.38 | 0.38 | 0.10 | 57.43 | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 8 | 8 | 1320 | 22 | | 8 | S 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1022 | 4.3 | | | | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 4.90 | 33.91 | 7.42 | 0.10 | — | 69.79 | 8.36 |
| 10 | 4.65 | 33.04 | 6.88 | 0.17 | — | 79.97 | 8.38 |
| 20 | 4.77 | 33.19 | 7.24 | — | 0.11 | 31.99 | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 9 | 8 | 1240 | 14 | 6 | 6 | SW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1023 | 4.2 | | | | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.55 | 33.26 | 7.34 | 0.22 | — | 31.99 | 8.40 |
| 10 | 5.12 | 33.30 | 7.33 | 0.24 | 0.10 | 79.24 | 8.39 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 10 | | | 14 | 5 | 9 | W 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1023 | 5.2 | | | | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 9.60 | 34.23 | 6.99 | 0.45 | 0.09 | 65.43 | 8.40 |
| 10 | 7.60 | 34.18 | 7.79 | 0.39 | 0.08 | 12.36 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 11 | 8 | 1010 | 13 | 7 | 6 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1024 | 4.8 | | | | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.80 | 33.69 | 7.60 | 0.38 | 0.27 | 68.34 | 8.39 |
| 10 | 5.38 | 33.73 | 7.59 | 0.22 | 0.19 | 58.89 | 8.39 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 12 | 7 | 1440 | 16 | 6 | 6 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1024 | 5.0 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.00 | 33.39 | 7.60 | 0.59 | 0.06 | 21.81 | 8.36 |
| 10 | 4.52 | 33.46 | 7.62 | 0.38 | 0.08 | 75.61 | 8.38 |
| 14 | 4.62 | 33.48 | 7.69 | 0.35 | 0.08 | 58.89 | 8.39 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 13 | 7 | 1345 | 16 | 4 | 6 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1025 | 5.2 | | Ni St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.40 | 33.57 | 7.62 | 0.56 | 0.08 | 7.27 | 8.37 |
| 10 | 4.77 | 33.57 | 7.72 | 0.21 | 0.13 | 32.72 | 8.36 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 14 | 7 | 1210 | 27 | 6 | 6 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1025 | 4.8 | | Ni St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg/at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.10 | 33.28 | 7.66 | 0.03 | 0.06 | 21.81 | 8.36 |
| 10 | 4.63 | 33.29 | 7.60 | 0.28 | 0.09 | 25.17 | 8.36 |
| 20 | 4.61 | 33.33 | 7.66 | 0.35 | 0.13 | 34.90 | 8.37 |
| 24 | 4.64 | 33.34 | 7.83 | — | — | — | 8.39 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C15 | 7 | 1055 | 46 | 6 | 6 | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1024 | 4.8 | | Ni-St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.60 | 33.42 | 7.79 | 0.27 | 0.15 | 73.43 | 8.34 |
| 10 | 5.18 | 33.50 | 7.79 | 0.31 | 0.11 | 61.07 | 8.32 |
| 20 | 5.47 | 33.49 | 7.48 | 0.41 | 0.17 | 86.51 | 8.36 |
| 30 | 6.09 | 33.72 | 7.54 | 0.42 | 0.12 | 47.26 | 8.37 |
| 44 | 6.64 | 33.88 | 7.50 | 0.32 | 0.15 | 53.89 | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C16 | 6 | 1710 | 18 | 7 | 6 | 0 | SE 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1023 | 7.2 | 6.2 | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 5.80 | 33.52 | 7.81 | 0.29 | 0.03 | 4.63 | 8.39 |
| 10 | 5.44 | 33.60 | 7.66 | 0.22 | 0.07 | 9.45 | 8.35 |
| 15 | 5.44 | — | 7.71 | 0.31 | 0.10 | 10.18 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C17 | 6 | 1405 | 35 | 5 | 8 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1023 | 8.8 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 9.00 | 34.16 | 7.21 | 0.17 | 0.02 | 6.54 | 8.40 |
| 10 | 8.30 | 34.13 | 7.66 | 0.42 | 0.04 | 2.18 | 8.39 |
| 20 | 8.02 | 34.15 | 7.40 | 0.15 | 0.03 | 10.91 | 8.38 |
| 30 | 7.92 | 34.15 | 7.27 | 0.24 | 0.04 | — | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C18 | 6 | 1205 | 31 | 5 | 9 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1026 | 8.0 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 10.20 | 34.30 | 5.99 | 0.28 | 0.10 | 4.36 | 8.31 |
| 10 | 9.27 | 34.23 | 7.19 | 0.27 | 0.03 | 14.54 | 8.34 |
| 20 | 7.35 | 34.03 | 7.58 | 0.25 | 0.08 | 22.54 | 8.38 |
| 27 | 7.26 | 34.03 | 7.40 | 0.32 | 0.03 | 1.45 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C19 | 6 | 1010 | 60 | 5 | 6 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1029 | 8.8 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.50 | 34.36 | 6.36 | 0.21 | 0.30 | 26.17 | — |
| 10 | 11.04 | 34.33 | 6.29 | 0.35 | 0.28 | 9.45 | 8.30 |
| 20 | 11.32 | 34.34 | 6.35 | 0.24 | — | — | 8.33 |
| 30 | 11.31 | 34.35 | 6.27 | 0.34 | 0.32 | 24.72 | 8.35 |
| 50 | 11.30 | — | 6.19 | 0.36 | 0.30 | 43.62 | 8.31 |
| 57 | 11.06 | 34.34 | 6.27 | 0.38 | 0.18 | 10.18 | 8.31 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C20 | 6 | 0930 | 45 | 5 | 7 | SE 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1025 | 7.3 | | Ci | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.80 | 34.37 | 6.19 | 0.08 | 0.28 | 21.08 | 8.30 |
| 10 | 11.30 | 34.36 | 6.35 | 0.38 | 0.26 | 5.09 | 8.31 |
| 20 | 11.63 | 34.34 | 6.27 | 0.36 | 0.24 | 10.91 | 8.32 |
| 30 | 11.54 | — | 6.23 | 0.35 | 0.25 | 14.54 | 8.32 |
| 40 | 11.04 | 34.33 | 6.35 | 0.32 | 0.30 | 36.35 | 8.31 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Smell |
|---|---|---|---|---|---|---|---|
| C21 | 5 | 1745 | 52 | | | SE 1 | ESE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1018 | 6.0 | | | | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.40 | 34.39 | 6.37 | 0.40 | 0.22 | 11.63 | 8.30 |
| 10 | 11.85 | 34.39 | 6.37 | 0.34 | 0.22 | 30.53 | 8.30 |
| 20 | 12.47 | 34.39 | 6.33 | 0.33 | — | 14.54 | 8.30 |
| 30 | 12.19 | 34.37 | 6.34 | 0.33 | 0.25 | 23.26 | 8.30 |
| 47 | 12.76 | 34.34 | 6.15 | 0.34 | 0.33 | 36.25 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C22 | 5 | 1550 | 54 | 5 | 7 | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1015 | 6.1 | | Ci-St | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.40 | 34.34 | 6.25 | 0.47 | 0.32 | 15.99 | 8.30 |
| 10 | 11.46 | 34.34 | 6.14 | 0.44 | 0.34 | 18.90 | 8.30 |
| 20 | 11.50 | 34.35 | 6.08 | 0.44 | 0.30 | 37.08 | 8.30 |
| 30 | 11.53 | — | 6.25 | 0.45 | 0.35 | 12.36 | 8.30 |
| 50 | 11.53 | 34.36 | 6.14 | 0.42 | 0.24 | 13.81 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C23 | 5 | 1340 | 50 | 6 | 12 | E 1 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1014 | 8.2 | | Ni-St | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.70 | 34.48 | 6.14 | 0.44 | 0.23 | 16.72 | 8.30 |
| 10 | 13.65 | 34.48 | 6.31 | 0.28 | 0.25 | 11.63 | 8.30 |
| 20 | 13.40 | 34.36 | 6.29 | 0.28 | 0.29 | 25.45 | 8.32 |
| 30 | 13.73 | 34.37 | 6.19 | 0.35 | 0.31 | 19.63 | 8.35 |
| 47 | 12.64 | 34.34 | 5.98 | 0.46 | 0.40 | 29.81 | 8.33 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C24 | 5 | 1115 | 76 | 5 | 12 | NS 1 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 761 | 9.7 | | Ci-St | 9 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.80 | 34.67 | 6.12 | 0.16 | 0.38 | 21.08 | 8.20 |
| 10 | 12.49 | 34.31 | 6.23 | 0.21 | 0.30 | 28.35 | 8.29 |
| 20 | 11.83 | 34.30 | 6.25 | 0.10 | 0.22 | 34.17 | 8.30 |
| 30 | 11.84 | 34.32 | 6.12 | 0.27 | 0.34 | 10.91 | 8.30 |
| 50 | 11.69 | 34.35 | 6.20 | 0.34 | 0.32 | 15.99 | 8.30 |
| 70 | 11.70 | 34.34 | 6.21 | 0.28 | 0.32 | 13.81 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C25 | 5 | 0820 | 55 | 6 | 5 | NE 1 | NE 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | | 6.2 | | W | 4 | BC |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.90 | 34.25 | 6.14 | 0.10 | 0.45 | 34.17 | 8.60 |
| 10 | 11.83 | 34.36 | 6.27 | 0.07 | 0.28 | 55.98 | 8.20 |
| 20 | 11.76 | 34.38 | 6.08 | 0.17 | 0.14 | 32.72 | 8.21 |
| 30 | 11.30 | 34.35 | — | — | — | — | 8.22 |
| 50 | 11.25 | 34.45 | 6.13 | 0.56 | — | — | 8.21 |

3월(March) 조사원 (Hwang Gyung Ho)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C1 | 12 | 1625 | 24 | 7 | 6 | SW 3 | SW 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1015 | 13.4 | | St | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.30 | — | 6.24 | 0.56 | 0.18 | 18.90 | 8.40 |
| 10 | 10.70 | 34.16 | 6.24 | 0.45 | 0.16 | 12.30 | 8.40 |
| 20 | 10.68 | 34.19 | 6.23 | 0.42 | 0.17 | 16.72 | 8.42 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C2 | 12 | 1525 | 18 | 7 | 5 | SW 2 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1016 | 10.6 | | St | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.20 | 33.72 | 6.42 | 0.36 | 0.15 | 21.08 | 8.40 |
| 10 | 10.06 | 33.84 | 6.34 | 0.18 | — | — | 8.38 |
| 15 | 9.99 | 33.90 | 6.24 | 0.32 | 0.20 | 15.99 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C3 | 12 | 1420 | 30 | 6 | 7 | NW 3 | NS 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1017 | 13.3 | | St | 2 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 9.80 | 32.57 | 6.66 | 0.27 | 0.11 | 16.72 | 8.50 |
| 10 | 10.00 | 33.72 | 6.65 | 0.32 | 0.16 | 21.81 | 8.48 |
| 20 | 9.33 | 33.73 | 6.52 | — | — | — | 8.40 |
| 30 | 9.24 | 33.68 | 6.61 | 0.36 | 0.09 | 13.81 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C4 | 12 | 1335 | 14 | 6 | 5 | SW 2 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1018 | 12.2 | | St | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | SO-Sti μg-ia/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 10.20 | 33.76 | 6.58 | 0.34 | 0.11 | 15.99 | 8.40 |
| 10 | 9.10 | 33.72 | 6.69 | 0.20 | — | 23.26 | 8.47 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C5 | 12 | 1230 | 30 | 6 | 7 | SW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1018 | 11.8 | | St | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 8.60 | 33.60 | 6.94 | 0.52 | 0.13 | 15.27 | 8.40 |
| 10 | 7.35 | 33.59 | 6.88 | 0.57 | 0.10 | 17.45 | 8.32 |
| 20 | 7.24 | 33.62 | 6.81 | 0.55 | 0.09 | 23.26 | 8.32 |
| 27 | — | 33.60 | 6.59 | 0.56 | 0.07 | 22.54 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C6 | 12 | 1135 | 15 | 5 | 5 | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1019 | 10.0 | | St | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 7.40 | 33.42 | 7.04 | 0.31 | 0.09 | 14.54 | 8.40 |
| 10 | 6.51 | 33.42 | 6.97 | 0.28 | 0.06 | 13.81 | 8.40 |
| 13 | 6.34 | 33.42 | 6.84 | 0.31 | 0.10 | 15.27 | 8.45 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C7 | 12 | 1100 | 22 | 5 | 6 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1019 | 8.4 | | St | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 7.30 | 33.37 | 7.06 | 0.22 | 0.10 | 10.91 | 8.34 |
| 10 | 6.40 | 33.32 | 6.86 | 0.38 | 0.10 | 11.63 | 8.35 |
| 20 | 6.20 | 33.46 | 6.87 | 0.39 | 0.09 | 12.36 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | SWell |
|---|---|---|---|---|---|---|---|
| C8 | 12 | 1025 | 24 | 5 | 6 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1019 | 8.3 | | St | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 7.40 | 33.26 | 6.93 | 0.28 | 0.08 | 16.00 | 8.40 |
| 10 | 6.52 | 33.30 | 6.84 | 0.24 | 0.06 | 13.09 | 8.39 |
| 20 | 5.80 | 33.33 | 7.09 | 0.39 | 0.13 | 14.54 | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C9 | 12 | 0940 | 14 | 5 | 5 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | | | | St | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 7.80 | 33.56 | 6.89 | 0.31 | 0.10 | 13.81 | 8.40 |
| 12 | 7.50 | 33.64 | 6.92 | 0.34 | 0.12 | 17.45 | 8.36 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C10 | 12 | 0720 | 12 | 5 | 5 | E 2 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1020 | 8.3 | | Ci-St | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 10.00 | 34.67 | 6.79 | — | 0.11 | 11.63 | 8.40 |
| 10 | 9.43 | 34.45 | 6.91 | 0.24 | 0.13 | 15.27 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C11 | 10 | 1750 | 14 | 5 | 5 | SW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1021 | 8.6 | | As | 8 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 8.70 | 34.10 | 6.77 | 0.29 | 0.14 | 10.18 | 8.40 |
| 10 | 8.94 | 34.35 | 6.90 | 0.31 | 0.12 | — | 8.39 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C12 | 10 | 1200 | 21 | 6 | 6 | N 2 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1023 | 7.7 | | As | 2 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 7.30 | 33.69 | 7.02 | 0.39 | 0.14 | 12.36 | 8.40 |
| 10 | 7.17 | 33.66 | 7.11 | 0.42 | 0.11 | 11.63 | 8.39 |
| 18 | 7.12 | 33.72 | 6.79 | 0.38 | 0.10 | 10.18 | 8.42 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C13 | 10 | 1120 | 5 | 7 | 3 | NE 3 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1024 | 6.4 | | As | 3 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 7.50 | 33.20 | 6.82 | 0.45 | 0.14 | 10.18 | 9.00 |
| 3 | 7.12 | 33.32 | 6.59 | 0.32 | 0.08 | 15.99 | 8.78 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C14 | 10 | 1045 | 26 | 7 | 6 | NE 2 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1024 | 6.5 | | Ci | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 7.30 | 33.07 | 6.46 | 0.34 | 0.12 | 11.63 | 8.30 |
| 10 | 6.99 | 33.03 | 6.47 | 0.52 | 0.09 | 10.91 | 8.23 |
| 23 | 6.98 | 33.03 | 6.45 | 0.55 | 0.13 | 13.09 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C15 | 10 | 0900 | 36 | 6 | 7 | NW 3 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | | 5.0 | | St | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 7.50 | 33.73 | 7.08 | 0.55 | 0.08 | 8.00 | 8.27 |
| 10 | 7.55 | 33.67 | 7.04 | 0.59 | 0.07 | 10.18 | 8.27 |
| 20 | 7.94 | 33.84 | 6.94 | 0.53 | 0.04 | 14.54 | — |
| 33 | 7.27 | 34.07 | 6.39 | 0.59 | 0.07 | 15.27 | 8.33 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C16 | 10 | 0745 | 16 | 5 | 6 | NW 2 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | | 4.7 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 7.50 | 33.67 | 6.98 | 0.32 | 0.07 | 10.18 | 8.37 |
| 10 | 7.47 | 33.69 | 7.14 | 0.35 | 0.06 | 10.18 | 8.40 |
| 13 | 7.35 | 33.69 | 7.04 | 0.31 | 0.04 | 12.36 | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C17 | 9 | 1520 | 23 | 6 | 9 | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 4 | 1029 | 10.5 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 10.20 | 34.37 | 7.04 | 0.18 | 0.08 | 8.00 | 8.34 |
| 10 | 9.12 | 34.33 | 7.33 | 0.18 | 0.06 | 7.27 | 8.35 |
| 20 | 8.68 | 34.30 | 6.98 | 0.22 | 0.05 | 9.45 | 8.37 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C18 | 9 | 1320 | 32 | 5 | 7 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | S | 1029 | 8.4 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.30 | 34.44 | 6.54 | 0.25 | 0.15 | 8.00 | 8.31 |
| 10 | 9.64 | 34.40 | 7.06 | 0.27 | 0.06 | 8.72 | 8.35 |
| 20 | 9.64 | 34.40 | 7.06 | 0.28 | 0.09 | 8.72 | 8.37 |
| 30 | 9.71 | 34.42 | 6.73 | 0.20 | 0.06 | 13.81 | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C19 | 9 | 1135 | 54 | 4 | 8 | NS 1 | NS 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NS | | 1030 | 8.5 | | Ci | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.70 | 34.55 | 6.53 | 0.21 | 0.07 | 11.63 | 8.30 |
| 10 | 10.83 | 34.50 | 6.63 | 0.25 | 0.20 | 10.18 | 8.30 |
| 20 | 10.92 | 34.48 | 6.43 | 0.27 | 0.09 | 9.45 | 8.32 |
| 30 | 10.80 | 34.47 | 6.61 | 0.53 | 0.09 | 10.91 | 8.32 |
| 50 | 10.71 | 34.46 | 7.06 | 0.31 | 0.15 | 13.99 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C20 | 9 | 0950 | 43 | 4 | 7 | NW 2 | NW 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1032 | 11.4 | | Ci | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.70 | 34.53 | 6.33 | 0.42 | 0.23 | 10.91 | 8.22 |
| 10 | 10.71 | 34.49 | 6.55 | 0.41 | 0.20 | 8.72 | 8.30 |
| 20 | 11.24 | 34.47 | 6.63 | 0.41 | 0.13 | 8.72 | 8.31 |
| 30 | 10.51 | 34.45 | 6.63 | 0.35 | 0.07 | 8.00 | 8.29 |
| 40 | 10.39 | 34.45 | 6.63 | 0.27 | 0.11 | 13.09 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C21 | 9 | 0800 | 48 | 4 | 8 | NW 1 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1032 | 9.2 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.40 | 34.55 | 6.17 | 0.41 | 0.30 | 13.09 | 8.18 |
| 10 | 11.60 | 34.52 | 6.12 | 0.41 | 0.30 | 15.27 | 8.20 |
| 20 | 11.77 | 34.51 | 6.12 | 0.43 | 0.31 | 13.09 | 8.28 |
| 30 | 11.72 | 34.50 | 5.69 | 0.42 | 0.33 | 12.36 | 8.28 |
| 45 | 11.69 | 34.50 | 5.65 | 0.38 | 0.28 | 15.27 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C22 | 8 | | 56 | 3 | 10 | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1030 | 8.6 | | Cs | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.70 | — | 6.18 | 0.28 | 0.17 | 15.27 | 8.20 |
| 10 | 10.09 | 34.51 | 6.17 | 0.48 | 0.20 | 6.54 | 8.20 |
| 20 | 11.62 | 34.52 | 6.21 | 0.38 | 0.20 | 5.82 | 8.25 |
| 30 | 11.61 | 34.51 | 6.27 | 0.36 | 0.22 | 10.91 | 8.26 |
| 53 | 11.39 | 34.52 | 6.18 | 0.31 | 0.22 | 15.99 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C23 | 8 | 1525 | 60 | 5 | 12 | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1030 | 7.5 | | Ci | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.30 | 34.18 | 6.31 | 0.49 | 0.14 | 18.18 | 8.20 |
| 10 | 10.95 | 34.27 | 6.30 | 0.35 | 0.17 | 15.27 | 8.17 |
| 20 | 11.11 | 34.43 | 6.31 | — | — | — | 8.15 |
| 30 | 11.31 | 34.40 | 6.38 | 0.21 | 0.07 | 17.45 | 8.23 |
| 50 | 11.50 | 34.45 | 6.41 | 0.24 | 0.20 | 23.99 | 8.23 |
| 57 | 11.18 | 34.46 | 6.33 | 0.35 | — | 27.63 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C24 | 8 | 1305 | 70 | 4 | 13 | NW 3 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1032 | 7.8 | | Ci | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.60 | 34.51 | 6.17 | 0.42 | — | 13.81 | 8.10 |
| 10 | 11.24 | 34.56 | 6.03 | 0.41 | 0.20 | 13.81 | 8.13 |
| 20 | 11.52 | 34.55 | 6.05 | — | — | — | 8.20 |
| 30 | 11.13 | 34.55 | 6.10 | 0.22 | 0.13 | 18.90 | 8.20 |
| 50 | 10.87 | 34.57 | 6.12 | 0.27 | 0.10 | 26.89 | 8.20 |
| 67 | 10.63 | 34.49 | 6.09 | 0.15 | 0.14 | 28.35 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C25 | 8 | 1128 | 54 | 5 | 9 | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1032 | 8.0 | | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 11.50 | 34.43 | 6.32 | 0.31 | 0.14 | 26.89 | 7.98 |
| 10 | 10.90 | 34.34 | 6.22 | 0.24 | 0.15 | 14.34 | 8.07 |
| 20 | 11.17 | 34.39 | 6.10 | 0.22 | — | 10.91 | 8.10 |
| 30 | 11.19 | 34.46 | 6.09 | 0.24 | 0.19 | 13.81 | 8.10 |
| 50 | 10.67 | 34.46 | 6.05 | 0.31 | 0.30 | 17.45 | 8.12 |

4월(April) 조사선(Chuck Yang Ho)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 1 | 21 | 0815 | 28 | 6 | 2 | NW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | | 14.2 | | Ci | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.10 | 34.17 | 6.39 | 0.14 | 0.13 | 7.27 | 8.00 |
| 10 | 13.26 | 34.11 | 6.11 | 0.24 | 0.06 | 8.72 | 8.20 |
| 20 | 13.16 | 34.37 | 6.08 | 0.25 | 0.05 | 8.00 | 8.28 |
| 25 | 13.14 | 34.39 | 6.09 | 0.27 | 0.06 | 14.54 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 2 | 21 | 0930 | 30 | 6 | 2 | NW 3 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | | 17.6 | | Ci | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.10 | 33.52 | 6.38 | 0.27 | 0.14 | 7.27 | 8.18 |
| 10 | 13.91 | 34.11 | 6.22 | 0.10 | 0.07 | 7.27 | 8.18 |
| 20 | 12.88 | 34.24 | 6.07 | 0.14 | 0.03 | 10.91 | 8.20 |
| 27 | 12.72 | 34.28 | 5.96 | 0.15 | 0.04 | 11.63 | 8.28 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 3 | 21 | 1035 | 40 | 6 | 6 | SW 3 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | | 17.2 | | Sc | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.30 | 33.66 | 6.93 | 0.21 | 0.10 | 6.54 | 8.19 |
| 10 | 12.32 | 33.51 | 6.39 | 0.28 | 0.05 | 7.27 | 8.27 |
| 20 | 12.94 | 33.96 | 6.26 | — | — | — | 8.32 |
| 30 | 12.91 | 33.19 | 6.17 | 0.28 | 0.20 | 7.27 | 8.37 |
| 37 | 12.89 | 34.22 | 6.19 | 0.36 | 0.02 | 5.09 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4 | 21 | 1115 | 20 | 6 | 5 | NW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | 17.8 | | Sc 2 | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.00 | 33.14 | 6.74 | 0.27 | 0.04 | 6.54 | 8.16 |
| 10 | 13.03 | 33.28 | 6.50 | 0.29 | 0.05 | 6.54 | 8.19 |
| 18 | 12.53 | 33.64 | 5.74 | 0.41 | 0.06 | 8.00 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 5 | 21 | 1230 | 26 | 6 | 4 | NW 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | | 20.3 | | Sc | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg/at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.10 | 32.57 | 6.80 | 0.22 | 0.04 | 5.09 | 8.18 |
| 10 | 11.31 | 33.04 | 6.82 | 0.28 | 0.02 | 6.54 | 8.17 |
| 23 | 10.92 | 33.20 | 6.50 | 0.35 | 0.06 | 8.00 | 8.17 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 6 | 21 | 1325 | 17 | 6 | 6 | NW 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | | 23.4 | | Sc | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.30 | 32.78 | 6.77 | 0.35 | 0.05 | 5.09 | 8.19 |
| 10 | 11.31 | 33.15 | 6.83 | 0.52 | 0.03 | 6.54 | 8.20 |
| 15 | 10.74 | — | 6.82 | 0.56 | — | 8.72 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 7 | 21 | 1400 | 24 | 7 | 3 | NW 2 | |

| Wind | | Baro. | Air Temp | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | | 19.4 | | Sc | 5 | Bc |

OBSERVED

| Z m | T °C | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.80 | 32.42 | 6.83 | 0.20 | 0.01 | 8.00 | 8.22 |
| 10 | 12.13 | 32.64 | 6.66 | 0.18 | 0.02 | 8.72 | 8.24 |
| 20 | 10.57 | 33.18 | 6.58 | 0.21 | 0 | 10.91 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 8 | 21 | 1435 | 23 | 6 | 4 | NW 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | | 19.1 | | Sc | 7 | Bc |

OBSERVED

| Z m | T °C | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.40 | 31.91 | 6.82 | 0.11 | 0.05 | 13.09 | 8.19 |
| 10 | 12.16 | 32.24 | 6.73 | 0.11 | 0.05 | 15.27 | 8.19 |
| 20 | 10.45 | 33.10 | 6.57 | 0.14 | 0.04 | 28.35 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 9 | 21 | 1515 | 16 | 6 | 5 | SW 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | | 20.7 | | Sc | 7 | Bc |

OBSERVED

| Z m | T °C | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.57 | 32.41 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 13 | 12.38 | 32.94 | 6.73 | 0.14 | 0.02 | 11.63 | [illegible] |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 10 | 21 | 1755 | 14 | 6 | 6 | SW 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | | 16.4 | | Ci | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.10 | 33.76 | 6.29 | 0.06 | 0.03 | 8.72 | 8.19 |
| 12 | 12.97 | 34.20 | — | 0.08 | 0.02 | 21.81 | 8.23 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 11 | 21 | 1825 | 17 | 5 | 4 | SW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | | 16.2 | | Sc | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.00 | 33.78 | 6.50 | 0.01 | 0 | 14.54 | 8.20 |
| 10 | 12.29 | 33.99 | 6.52 | 0.01 | 0.01 | 29.81 | 8.21 |
| 15 | 12.44 | — | — | 0.04 | — | 10.18 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 12 | 22 | 0615 | 20 | 7 | 3.5 | N 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | | 11.4 | | Sc | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.60 | 33.27 | 6.39 | 0.04 | 0.01 | 10.18 | 8.20 |
| 10 | 12.37 | 33.37 | 6.40 | 0.02 | 0.01 | 15.27 | 8.22 |
| 18 | 12.38 | 33.39 | 6.37 | 0.01 | 0.02 | 22.54 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 13 | 22 | 0655 | 8 | 7 | 2 | N 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | | 14.3 | | Sc | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at-L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.69 | 32.70 | 6.39 | 0.01 | 0.01 | 17.45 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 14 | | | 10 | 7 | 1.5 | N 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | | 14.2 | | Sc | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.60 | 32.41 | 6.39 | 0.07 | 0.02 | 28.35 | 8.15 |
| 10 | 13.88 | 32.43 | 6.42 | 0.11 | 0.01 | 42.17 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 15 | 22 | 0930 | 45 | 7 | 4 | N 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | | 16.4 | | Sc | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.50 | 32.44 | 6.73 | 0.03 | 0.02 | 10.91 | 8.20 |
| 10 | 11.88 | 32.95 | 6.50 | 0.13 | 0.04 | 14.54 | 8.20 |
| 20 | 11.71 | 33.66 | 6.48 | 0.14 | 0.05 | 13.81 | 8.20 |
| 30 | 11.66 | 33.81 | 6.47 | 0.17 | 0.06 | 21.81 | 8.18 |
| 40 | 11.62 | 33.22 | 6.39 | 0.29 | — | 50.89 | 8.17 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 16 | 22 | 1020 | 28 | 5 | 7 | NW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | | 18.7 | | Ci | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 12.80 | 33.35 | 6.81 | 0.08 | 0.07 | 13.09 | 8.18 |
| 10 | 12.00 | 33.79 | 6.65 | 0.14 | 0.05 | 16.72 | 8.20 |
| 20 | 11.85 | 33.89 | 6.70 | 0.24 | 0.06 | — | 8.22 |
| 25 | 11.68 | 33.95 | 6.41 | 0.32 | 0.04 | 7.27 | 8.21 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 17 | 22 | 1120 | 26 | 6 | 6 | NW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | | 19.4 | | Ci | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | gH |
|---|---|---|---|---|---|---|---|
| 0 | 13.00 | 34.02 | 6.61 | 0.17 | 0.02 | 12.36 | 8.22 |
| 10 | 12.25 | 34.00 | 6.53 | 0.21 | 0.03 | 16.72 | 8.21 |
| 24 | 11.59 | 33.02 | 6.39 | 0.24 | 0.04 | 13.09 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 18 | 22 | 1225 | 34 | 5 | 7 | NW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW 1 | 1 | | 20.4 | | Ci | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.10 | 33.83 | 6.23 | 0.17 | 0.07 | 15.99 | 8.23 |
| 10 | 11.74 | 33.99 | 6.17 | 0.28 | 0.07 | 10.18 | 8.21 |
| 20 | 11.60 | 34.08 | 6.22 | 0.28 | — | 26.98 | 8.20 |
| 30 | 11.61 | 34.14 | 6.17 | 0.29 | 0.06 | 9.45 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 19 | 22 | 1354 | 60 | 5 | 10 | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | | 19.3 | | Ci | 4 | Bc |

OBSERVED

| Z m | T °C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.00 | 34.25 | 6.79 | 0.18 | 0.05 | 8.72 | 8.20 |
| 10 | 12.10 | 34.17 | 6.65 | 0.17 | 0.04 | 13.09 | 8.23 |
| 20 | 11.86 | 34.16 | 6.61 | 0.20 | 0.07 | 8.72 | 8.27 |
| 30 | 11.81 | 34.17 | 6.30 | 0.25 | 0.06 | 7.27 | 8.29 |
| 50 | 11.72 | 34.23 | 6.28 | 0.21 | 0.04 | 9.45 | 8.28 |
| 55 | 11.72 | 34.32 | 6.13 | 0.31 | 0.04 | 9.91 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 20 | 22 | 1930 | 60 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | | 14.3 | | Ci | 6 | Bc |

OBSERVED

| Z m | T °C | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.50 | 34.09 | 6.62 | 0.07 | 0.06 | 17.45 | 8.28 |
| 10 | 12.94 | 34.32 | 6.39 | 0.07 | 0.09 | 17.45 | 8.30 |
| 20 | 13.04 | 34.32 | 6.09 | 0.13 | 0.10 | 14.54 | 8.28 |
| 30 | 12.68 | 34.33 | 6.09 | 0.14 | 0.12 | 10.91 | 8.30 |
| 50 | 12.19 | 34.31 | 6.11 | 0.18 | 0.12 | 10.91 | 8.29 |
| 57 | 12.20 | 34.32 | 5.96 | 0.27 | 0.12 | 13.81 | 8.28 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 21 | 22 | 2100 | 73 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | | 14.0 | | Ci | 7 | Bc |

OBSERVED

| Z m | T C | S ‰ | $O_2$ %. | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.[illegible] | 34.42 | 6.17 | 0.07 | 0.02 | 11.63 | 8.28 |
| 10 | 13.63 | 34.39 | 6.11 | 0.24 | 0.02 | 14.54 | 8.28 |
| 20 | 13.44 | 34.40 | 6.08 | 0.21 | 0.04 | 12.36 | 8.33 |
| 30 | 13.30 | 34.38 | 6.03 | 0.20 | 0.02 | 13.81 | 8.27 |
| 50 | 12.[illegible] | 34.35 | 6.02 | 0.24 | 0.01 | 10.91 | 8.30 |
| 70 | 12.32 | 34.40 | 5.95 | 0.21 | 0.02 | 9.45 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 22 | 22 | 2220 | 54 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | | 13.6 | | Sc | 5 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.40 | 33.83 | 6.30 | 0.28 | 0.05 | 13.09 | 8.29 |
| 10 | 12.93 | 34.04 | 6.22 | 0.32 | 0.04 | 14.54 | 8.27 |
| 20 | 12.75 | 34.14 | 6.07 | 0.29 | 0.03 | 14.54 | 8.28 |
| 30 | 12.72 | 34.19 | 5.96 | 0.32 | 0.06 | 15.27 | 8.47 |
| 50 | 12.71 | 34.18 | 5.89 | 0.31 | 0.02 | 13.81 | 8.23 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 23 | 22 | 2400 | 60 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | | 13.6 | | Sc-Cs | 4 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.80 | 34.42 | 6.40 | 0.06 | 0.04 | 11.63 | 8.28 |
| 10 | 13.81 | 34.20 | 6.41 | 0.06 | 0.06 | 10.91 | 8.28 |
| 20 | 13.90 | 34.36 | 6.21 | 0.13 | — | 12.36 | 8.28 |
| 30 | 13.93 | 34.51 | 5.98 | 0.21 | — | 10.91 | 8.28 |
| 50 | 13.68 | 34.53 | 5.85 | 0.25 | 0.09 | 13.81 | 8.25 |
| 57 | 13.65 | 34.56 | 5.75 | 0.24 | 0.06 | 14.54 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 24 | 23 | 0110 | 67 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | | 13.8 | | Cs | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.80 | 33.20 | 6.49 | 0.08 | — | 18.90 | 8.25 |
| 10 | 13.67 | 34.01 | 6.47 | 0.07 | 0.06 | 10.91 | 8.29 |
| 20 | 13.63 | 34.12 | 6.28 | 0.08 | 0.07 | 11.63 | 8.30 |
| 30 | 13.68 | 34.21 | 6.14 | 0.11 | 0.08 | 13.81 | 8.28 |
| 50 | 13.72 | 34.41 | 5.96 | 0.15 | 0.10 | 8.72 | 8.27 |
| 65 | 13.68 | 34.43 | 5.96 | 0.15 | — | 10.91 | 8.26 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 25 | 23 | 0220 | 63 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | | 13.5 | | Cs | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.50 | 33.26 | 6.17 | — | — | — | 8.27 |
| 10 | 13.41 | 33.98 | 6.14 | 0.13 | 0.07 | 20.36 | 8.29 |
| 20 | 13.28 | 34.00 | 6.10 | 0.14 | 0.08 | 13.09 | 8.28 |
| 30 | 13.24 | 34.32 | 5.97 | 0.18 | 0.09 | 10.91 | 8.23 |
| 50 | 13.13 | 34.35 | 5.96 | 0.21 | 0.12 | 14.54 | 8.22 |
| 60 | 13.08 | 34.37 | 5.94 | 0.28 | — | — | 8.29 |

5월(May) 황경호(Hwang Gyung Ho)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 1 | 30 | 1735 | 23 | 7 | 5 | S 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1005 | | | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.40 | 33.59 | 10.57 | 0.07 | 0.05 | 11.63 | 8.30 |
| 10 | 15.17 | 34.06 | 5.72 | 0.15 | 0.02 | 5.82 | 8.30 |
| 20 | 14.30 | 34.11 | 5.68 | 0.50 | 0.02 | 17.45 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 2 | 30 | 1530 | 36 | 4 | 7 | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1003 | 19.1 | | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.39 | 34.07 | 14.59 | 0.18 | 0.03 | 10.91 | 8.38 |
| 30 | 14.96 | 33.86 | 4.68 | 0.91 | 0.02 | 11.63 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 3 | 30 | 1530 | 36 | 4 | 7 | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1004 | 20.8 | | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.12 | 33.83 | 5.72 | 0.27 | 0.02 | 11.63 | 8.32 |
| 10 | 17.05 | 33.41 | 6.13 | 0.84 | 0.02 | 20.36 | 8.35 |
| 20 | 17.43 | 33.72 | 6.34 | 0.77 | 0.01 | 10.91 | 8.38 |
| 33 | 15.37 | 34.02 | 5.95 | 0.64 | 0.01 | 11.63 | 8.36 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4 | 30 | 2450 | 20 | 4 | 8 | E 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1004 | 22.9 | | Cs | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.40 | 33.23 | 5.78 | 0.21 | 0.02 | 8.00 | 8.30 |
| 10 | 17.69 | 33.56 | 5.84 | 0.59 | 0.02 | 13.09 | 8.35 |
| 18 | 15.37 | 34.02 | 5.80 | 0.49 | 0 | 16.72 | 8.31 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 5 | 30 | 1335 | 22 | 5 | 9 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1002 | 21.1 | | Cs | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.92 | 33.05 | 5.75 | 0.21 | 0 | 7.27 | 8.37 |
| 10 | 17.91 | 33.42 | 5.91 | 0.45 | 0 | 3.64 | 8.35 |
| 20 | 16.22 | 33.45 | 5.90 | 0.63 | 0.02 | 8.72 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 6 | 30 | 1250 | 18 | 4 | 10 | W 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1005 | | | Cs | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.11 | 32.89 | 5.72 | 0.22 | 0 | 2.91 | 8.35 |
| 15 | 17.37 | 33.32 | 5.87 | 0.77 | 0 | 11.63 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 7 | 30 | 1215 | 22 | 11 | 4 | W 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | 1005 | 22 | | Cs | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.42 | 32.93 | 6.14 | 0.25 | 0.04 | 2.18 | 8.32 |
| 10 | 17.79 | 33.15 | 6.03 | 0.84 | 0.03 | 8.00 | 8.38 |
| 20 | 15.14 | 33.13 | 5.84 | 1.08 | 0 | 11.63 | 8.33 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 8 | 30 | 1140 | 20 | 3 | 12 | SW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1006 | 21.7 | | Ci | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P -μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.80 | 31.91 | 5.91 | 0.60 | 0 | 0 | 8.30 |
| 10 | 17.06 | 33.00 | 6.23 | 0.42 | 0 | 7.27 | 8.30 |
| 17 | 15.11 | 33.08 | 6.34 | 1.22 | 0.02 | 6.54 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 9 | 30 | 0740 | 15 | 5 | 8 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1007 | 21 | | Cs | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.82 | 33.19 | 5.95 | 0.13 | 0.01 | 23.99 | 8.29 |
| 12 | 17.05 | — | 5.74 | 0.24 | 0.02 | 0 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 10 | 30 | 0515 | 14 | 3 | 6 | S 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amnunt | |
| S | 1 | 1008 | 17.8 | | Fog | | F |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.71 | 33.67 | 5.81 | — | 0 | 10.18 | 8.30 |
| 13 | 17.37 | 33.78 | 6.04 | 1.13 | 0 | 12.36 | 8.37 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 11 | 29 | 1835 | 16 | 4 | 7 | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1003 | 18.9 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.42 | — | 5.97 | 0.81 | — | — | 8.30 |
| 13 | 16.75 | 33.25 | 5.91 | 0.95 | 0.10 | 6.54 | 8.31 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 12 | 29 | 1555 | 16 | 6 | 3 | SE 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1008 | 22.1 | | Cs | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.07 | — | 6.13 | 0.27 | 0 | 8.72 | 8.23 |
| 13 | 19.27 | 33.44 | 5.48 | 1.19 | 0.02 | 6.54 | 8.26 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 13 | 29 | 1515 | 17 | 7 | 3 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1008 | 23 | | Ci | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.25 | 33.07 | 5.70 | 0.13 | 0.06 | 7.27 | 8.25 |
| 15 | 20.40 | 33.17 | 4.77 | 0.55 | 0 | 8.00 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 14 | 29 | 1440 | 24 | 7 | 3 | SE 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1008 | 20.9 | | Ci | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.96 | 33.07 | 5.70 | 0.14 | 0.08 | 11.63 | 8.25 |
| 10 | 20.53 | 33.06 | 5.16 | 0.22 | 0.05 | 5.09 | 8.25 |
| 20 | 20.51 | 33.07 | 5.26 | 0.45 | 0.01 | 11.63 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 15 | 28 | 1358 | 22 | 7 | 3 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1009 | 23 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.50 | 34.13 | 5.91 | 0.27 | 0.05 | 18.90 | 8.32 |
| 10 | 19.13 | 33.26 | 4.73 | 0.62 | 0.02 | 12.36 | 8.30 |
| 20 | 17.37 | 33.63 | 6.14 | 0.66 | 0.01 | 6.54 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 16 | 28 | 1130 | 23 | 5 | 4 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1009 | 20.4 | | Cu | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.80 | 33.05 | 6.25 | 0.01 | 0 | 6.54 | 8.37 |
| 10 | 17.40 | 33.64 | 6.37 | 0.52 | 0.01 | 8.72 | 8.39 |
| 20 | 16.90 | 33.71 | 4.19 | 0.22 | 0.04 | 6.54 | 8.36 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 17 | 28 | 1035 | 24 | 4 | 6 | WE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1008 | 18.2 | | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.62 | 33.67 | 6.72 | 0.69 | 0.01 | 10.18 | 8.27 |
| 10 | 17.25 | 34.14 | 6.24 | 0.69 | 0.07 | 8.72 | 8.30 |
| 20 | 16.35 | 33.80 | 6.03 | 0.43 | 0 | 4.36 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 18 | 28 | 0830 | 32 | 5 | 8 | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1008 | 17.3 | | As | 10 | F |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-S μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.93 | 33.87 | 6.61 | 0.42 | 0.05 | 10.18 | 8.30 |
| 10 | 16.99 | 33.79 | 6.42 | 0.41 | 0.02 | 5.82 | 8.27 |
| 20 | 15.80 | 33.07 | 6.65 | 0.32 | 0.01 | 15.99 | 8.27 |
| 30 | 15.39 | 33.63 | 6.55 | 0.45 | 0.03 | 8.60 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 19 | 28 | 0710 | 52 | 5 | 12 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1008 | 17.1 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.00 | 33.84 | 6.47 | 0.13 | 0 | 2.18 | 8.29 |
| 10 | 16.11 | 33.91 | 6.77 | 0.07 | 0.01 | 6.54 | 8.27 |
| 20 | 15.99 | 33.91 | 6.48 | 0.27 | 0 | 5.09 | 8.32 |
| 30 | 15.98 | 33.90 | 6.52 | 0.17 | 0.02 | 22.54 | 8.30 |
| 50 | 15.45 | 33.96 | 6.44 | 0.24 | 0 | 13.81 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 20 | 27 | 1830 | 38 | 5 | 10 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1005 | 17.2 | | F | 10 | F |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.52 | 33.88 | 6.66 | 0.90 | 0.01 | 7.27 | 8.26 |
| 10 | 16.09 | 33.90 | 6.54 | 0.31 | 0.03 | 2.91 | 8.30 |
| 20 | 16.18 | 33.90 | 6.52 | 0.20 | 0.02 | 3.64 | 8.32 |
| 35 | 15.58 | 33.97 | 6.50 | 0.50 | 0.02 | 5.09 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 21 | 27 | 1610 | 38 | 4 | 10 | 0 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amonnt | |
| SW 1 | 1 | 1006 | 23.3 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.31 | 34.00 | 6.45 | 0 | 0.03 | 26.89 | 8.27 |
| 10 | 15.59 | 34.01 | 6.44 | 0.13 | 0 | 13.81 | 8.13 |
| 20 | 15.49 | 34.00 | 6.24 | 0.41 | 0.01 | 11.63 | 8.05 |
| 30 | 15.42 | 34.01 | 6.45 | 0.24 | 0.03 | 10.18 | 8.25 |

| St No. | Date | Tim | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 22 | 27 | 1335 | 52 | 4 | 8 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1007 | 19.9 | | | | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.13 | 34.01 | 6.47 | 0.62 | 0.06 | 13.81 | 8.30 |
| 10 | 15.25 | 24.10 | 6.40 | 0.63 | 0.08 | 12.36 | 8.21 |
| 20 | 15.22 | 34.10 | 6.19 | 0.70 | 0.02 | 11.63 | 8.22 |
| 30 | 15.27 | 34.07 | 6.12 | 0.50 | 0.02 | 10.91 | 8.25 |
| 50 | 15.00 | 34.08 | 6.03 | 0.76 | 0 | 10.18 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 23 | 27 | 1130 | 64 | 4 | 9 | 8 | SE 7 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1007 | 20.1 | | Ci | 1 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.41 | 34.00 | 6.81 | 0.03 | 0.01 | 12.36 | 8.12 |
| 10 | 16.09 | 34.03 | 6.77 | 0.28 | 0.02 | 8.72 | 8.28 |
| 20 | 15.32 | 34.07 | 6.42 | 0.36 | 0.01 | 8.00 | 8.20 |
| 30 | 15.32 | 34.08 | 6.29 | 0.41 | 0.02 | 10.18 | 8.17 |
| 60 | 13.06 | 33.77 | 6.20 | 0.56 | — | 11.63 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 24 | 27 | 0915 | 62 | 7 | 6 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1006 | 20.2 | | Ci | 1 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.20 | 34.03 | 6.58 | 0.21 | 0.03 | 13.81 | 8.18 |
| 10 | 16.79 | 34.10 | 6.55 | 0.21 | 0 | 15.27 | 8.27 |
| 20 | 16.33 | 34.21 | 6.36 | 0.22 | 0 | 8.00 | 8.30 |
| 30 | 15.16 | 33.87 | 6.16 | 0.22 | 0.01 | 6.54 | 8.25 |
| 60 | — | 33.45 | 5.86 | — | 0.02 | 6.54 | 7.97 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 25 | 27 | 0810 | 50 | 8 | 2 | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1006 | 19.7 | | Ci | 2 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.02 | 33.71 | 6.52 | 1.83 | 0.01 | 17.45 | 8.20 |
| 10 | 14.99 | 34.05 | 6.42 | 1.61 | 0 | 19.63 | 8.10 |
| 20 | 14.95 | 34.07 | 6.06 | 1.96 | 0 | 15.99 | 8.10 |
| 30 | 13.88 | 34.18 | 6.03 | 2.03 | 0.01 | 13.81 | 8.04 |
| 47 | 14.50 | 34.14 | 5.99 | 1.81 | 0.02 | 7.82 | 8.18 |

6월 (June) 황경호(Hwang Gyung Ho)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 1 | 25 | 1905 | 23 | | | 1 | 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | | 1002 | 19.5 | | | 10 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.89 | 33.44 | — | 0.01 | — | 14.54 | 8.35 |
| 10 | 18.09 | 33.50 | — | 0.01 | — | 8.72 | 8.25 |
| 20 | 16.01 | 33.84 | — | 0.01 | — | 18.18 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 2 | 25 | 1800 | 21 | | | 1 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1001 | 19.7 | | Ns | 10 | R |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19 69 | 32. 14 | — | — | — | 10. 18 | 8. 32 |
| 10 | 19. 77 | 32. 26 | — | — | — | 6. 54 | 8. 37 |
| 19 | 18. 00 | 33. 58 | — | — | — | 29. 08 | 8. 33 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 3 | 25 | 1655 | 33 | | | NW 1 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1000 | 19. 5 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18. 96 | 33. 21 | — | 0. 35 | — | 8. 72 | 8. 35 |
| 10 | 18. 81 | 33. 25 | — | 0. 39 | — | — | 8. 35 |
| 20 | 18. 14 | 33. 49 | — | 0. 31 | — | 7. 27 | 8. 34 |
| 30 | 17. 10 | 33. 76 | — | 0. 35 | — | 14. 54 | 8. 33 |

| St No. | Date | Time | Depth | Water Color. | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4 | 25 | 1500 | 22 | | | 0 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1000 | 20. 2 | | NS | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21. 02 | 33. 70 | — | 0. 21 | — | 12. 36 | 8. 35 |
| 10 | 19. 87 | 33. 42 | — | 0. 35 | — | 13. 90 | 8. 38 |
| 20 | 18. 20 | 33. 85 | — | 0. 39 | — | 12. 36 | 8. 35 |

| St No | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 5 | 25 | 1505 | 24 | 6 | 7 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1000 | 21.1 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.52 | 32.72 | — | 0.11 | — | 0 | 8.33 |
| 10 | 21.27 | 33.33 | — | 0.10 | — | 1.45 | 8.35 |
| 22 | 20.34 | 33.51 | — | 0.28 | — | 14.54 | 8.36 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 6 | 25 | 1420 | 16 | 3 | 14 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 3 | 1000 | 21.9 | | Ns | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.02 | 32.31 | — | 0.07 | — | 13.81 | 8.34 |
| 13 | 20.26 | 33.46 | — | 0.21 | — | 17.45 | 8.36 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 7 | 25 | 1345 | 24 | 4 | 12 | NE 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1000 | 21.0 | | Ns | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.09 | 33.31 | — | 0.07 | — | 10.91 | 8.35 |
| 10 | 20.99 | 33.58 | — | 0.14 | — | 14.54 | 8.37 |
| 20 | 17.92 | [illegible] | — | [illegible] | — | [illegible] | [illegible] |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 8 | 25 | 1315 | 21 | 4 | 13 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1000.1 | 20.8 | N | Ns | 10 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.73 | 33.26 | — | 0.08 | — | 10.18 | 8.37 |
| 10 | 20.57 | 33.38 | — | 0.11 | — | 18.90 | 8.39 |
| 18 | 17.87 | 33.38 | — | 0.21 | — | 18.90 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 9 | 25 | 1220 | 13 | 6 | 5 | NE 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | | 1000 | 20.5 | | Ns | 10 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.15 | 32.24 | — | 0.15 | — | 10.18 | 8.35 |
| 10 | 18.98 | 33.35 | — | 0.15 | — | 18.90 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 10 | 25 | 0950 | 14 | | | NE 1 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1000.4 | | | Ns | 10 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.84 | 32.77 | — | 0.15 | — | 8.00 | 8.30 |
| 12 | 21.7[illegible] | 32.77 | [illegible] | 0.14 | — | 1.45 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 11 | 24 | 1810 | 13 | 7 | 45 | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | | 1004 | 22.2 | | Ns | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.74 | 33.54 | — | 0.11 | — | 2.91 | 8.31 |
| 10 | 19.67 | 33.60 | — | 0.17 | — | 8.72 | 8.33 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 12 | 24 | 1130 | 22 | 8 | 2 | W 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | 1004.5 | 24.7 | 0 | Ac | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.04 | 33.49 | — | 0.20 | — | 10.91 | 8.25 |
| 10 | 22.51 | 33.51 | — | 0.31 | — | 3.64 | 8.29 |
| 20 | 22.41 | 33.52 | — | 0.29 | — | 7.27 | 8.24 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 13 | 24 | 1035 | 8 | 8 | 15 | E 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1004 | 24.3 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.21 | 33.47 | — | 0.22 | — | 6.54 | 8.28 |
| 6 | 23.00 | 33.50 | — | 0.31 | — | 8.72 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 14 | 24 | 10000. | 26 | 7 | 3 | W 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 2 | 1004 | 23.9 | | As | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_2$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.97 | — | — | 0.14 | — | 9.45 | 8.30 |
| 10 | 23.49 | 33.41 | — | 0.29 | — | 11.63 | 8.29 |
| 24 | 23.46 | 33.40 | — | 0.29 | — | 10.18 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 15 | 24 | 0810 | 22 | 7 | 3 | NE 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1005 | 22.7 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.77 | 33.37 | — | 0.29 | — | 9.45 | 8.30 |
| 10 | 22.56 | 33 39 | — | 0.24 | — | 8.00 | 8.28 |
| 20 | 22.46 | 33.69 | — | 0.34 | — | 10.18 | 8.28 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 16 | 23 | 0730 | 21 | 7 | 6 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1003 | 22.1 | | | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.59 | 33.51 | — | 0.29 | — | 12.36 | 8.30 |
| 10 | 21.19 | 33.52 | — | 0.28 | — | 10.18 | 8.30 |
| 19 | 21.04 | 33.40 | — | 0.34 | — | 9.45 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 17 | 23 | 0730 | 22 | 7 | 6 | S 0 | S 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1003 | 22.4 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.29 | 33.53 | — | 0.01 | — | 10.91 | 8.32 |
| 10 | 20.97 | 33.49 | — | 0.01 | — | 7.27 | 8.32 |
| 20 | 20.29 | 33.56 | — | 0.11 | — | 8.72 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 18 | 22 | 1920 | 29 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1000 | 21.3 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.28 | 33.31 | — | 0.04 | — | 9.45 | 8.30 |
| 10 | 20.96 | 33.41 | — | 0.07 | — | 10.91 | 8.22 |
| 27 | 18.57 | 33.61 | — | 0.13 | — | 18.90 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 19 | 22 | 1805 | 58 | 4 | 11 | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1000.2 | 21.6 | | | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.79 | 33.43 | — | 0.14 | — | 6.54 | 8.25 |
| 10 | 19.42 | 33.53 | — | 0.14 | — | 13.09 | 8.30 |
| 20 | 19.93 | 33.59 | — | 0.17 | — | 10.91 | 8.30 |
| 30 | 19.42 | 33.63 | — | 0.21 | — | 8.72 | 8.26 |
| 56 | 17.50 | 33.69 | — | 0.22 | — | 21.08 | 8.27 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 20 | 22 | 0705 | 38 | 6 | 9 | E 2 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1000.6 | 21.4 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-gt/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.84 | 33.59 | — | 0.25 | — | 10.91 | 8.28 |
| 10 | 20.30 | 33.61 | — | 0.17 | — | 8.00 | 8.30 |
| 20 | 19.16 | 33.66 | — | 0.20 | — | 10.91 | 8.30 |
| 35 | 17.68 | 33.70 | — | 0.24 | — | 8.72 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 21 | 22 | 1525 | 48 | 6 | 7 | NE 2 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1011 | 19.3 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.01 | — | — | 0.24 | — | 12.36 | 8.30 |
| 10 | 17.58 | 33.73 | — | 0.28 | — | 10.91 | 8.30 |
| 20 | 16.01 | 33.77 | — | 0.32 | — | 14.54 | 8.27 |
| 30 | 15.01 | 33.78 | — | 0.38 | — | 21.08 | 8.26 |
| 45 | 15.94 | 33.76 | — | 0.28 | — | 16.72 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 22 | 22 | 1345 | 54 | 1 | 5 | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1001 | 20.1 | | Sc | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO^4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.52 | 33.50 | — | 0.20 | — | 18.13 | 8.24 |
| 10 | 16.47 | 33.76 | — | 0.28 | — | 18.90 | 8.23 |
| 20 | 15.94 | 33.84 | — | 0.36 | — | 12.36 | 8.20 |
| 30 | 15.55 | 33.84 | — | 0.33 | — | 18.18 | 8.20 |
| 50 | 16.52 | 33.77 | — | 0.34 | — | 18.90 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 23 | 22 | 130 | 58 | 3 | 16 | NE 2 | 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1002 | 21.4 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 18.31 | 33.49 | — | 0.18 | — | 8.72 | 8.23 |
| 10 | 16.79 | 33.60 | — | 0.10 | — | 17.45 | 8.30 |
| 20 | 14.19 | 33.74 | — | 0.21 | — | 14.54 | 8.21 |
| 30 | 14.22 | 34.06 | — | 0.35 | — | 19.63 | 8.20 |
| 55 | 16.79 | 33.84 | — | 0.28 | — | 16.72 | 8.24 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 24 | 22 | 0935 | 63 | 6 | 10 | E 2 | E 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1002 | 21.1 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.65 | 34.05 | — | 0.22 | — | 32.72 | 8.21 |
| 10 | 20.42 | 34.06 | — | 0.28 | — | 10.13 | 8.25 |
| 20 | 20.06 | 33.76 | — | 0.25 | — | 9.45 | 8.25 |
| 30 | 14.38 | 34.11 | — | 0.32 | — | 18.90 | 8.20 |
| 60 | 13.81 | 33.67 | — | 0.27 | — | 69.79 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 25 | 22 | 0825 | 42 | 6 | 11 | E 2 | E 1 |

| Wind | | Baro. | Air Temp | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dyr | Wet | Type | Amount | |
| E | 2 | 1003 | 21.1 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.65 | 33.29 | — | 0.14 | — | 5.09 | 8.07 |
| 10 | 20.46 | 33.41 | — | 0.28 | — | 6.54 | 8.13 |
| 20 | 19.81 | 33.75 | — | 0.29 | — | 12.36 | 8.21 |
| 30 | 15.86 | 33.78 | — | 0.49 | — | 16.72 | 8.23 |
| 40 | 15.25 | 34.02 | — | 0.43 | — | 19.63 | 8.20 |

7월(July) 북한산(Buk Han San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 1 | 25 | 1618 | 26 | 8 | 4 | SE 3 | SE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1010.6 | 26.2 | | Ci | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.02 | 33.39 | 5.83 | 0.07 | 0.24 | 39.99 | 8.28 |
| 10 | 23.61 | 33.35 | 6.09 | 0.10 | 0.12 | 33.44 | 8.30 |
| 24 | 22.20 | 33.45 | 5.47 | 0.07 | 0.03 | 34.90 | 8.45 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 2 | 25 | 1530 | 12 | 3 | 8 | SE 3 | SE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 3 | 1010.4 | 26.7 | | Ci | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.44 | 32.56 | 6.77 | 0.38 | 0.13 | 40.71 | 8.20 |
| 10 | 21.94 | 32.82 | 6.35 | 0.49 | 0.14 | 39.26 | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 3 | 25 | 1445 | 36 | 8 | 4 | SE 3 | SE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 4 | 1011.2 | 26.3 | | Ci | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.39 | 31.96 | 6.29 | 0.41 | 0.14 | 36.35 | 8.10 |
| 10 | 22.55 | 32.75 | 6.45 | 0.35 | 0.13 | 29.08 | 8.20 |
| 20 | 18.69 | 33.20 | 5.73 | 0.42 | 0.06 | 34.1 | |
| 33 | 16.52 | 34.10 | 4.79 | 0.28 | 0.11 | 36.35 | 8.0 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4 | 25 | 1354 | 18 | 8 | 9 | E 2 | E 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1011.1 | 27.4 | | Ci | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.91 | 32.44 | 6.50 | 0.35 | 0.07 | 36.35 | 8.18 |
| 15 | 17.41 | 33.47 | 6.01 | 0.39 | 0.11 | 47.98 | 7.90 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 5 | 25 | 1250 | 21 | 6 | 7 | E 1 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1011.4 | 29.2 | | Ci | 2 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.02 | 31.57 | 6.14 | 0.29 | 0.14 | 48.71 | 8.03 |
| 10 | 18.05 | 33.18 | 5.16 | 0.43 | 0.11 | 61.07 | - |
| 18 | 16.96 | — | 4.17 | — | — | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 6 | 25 | 1155 | 19 | 6 | 7 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1011.6 | 28.6 | | Ci | 2 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO^4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.36 | 31.34 | 5.93 | 0.38 | 0.11 | 44.35 | 8.20 |
| 16 | 20.32 | 33.10 | 5.83 | 0.39 | 0.08 | 39.99 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 7 | 25 | 1125 | 24 | 5 | 8 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1011.8 | 28.1 | | Ci | 2 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO^4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.46 | 31.40 | — | 0.38 | 0.12 | 54.53 | 8.30 |
| 10 | 19.56 | 33.10 | — | 0.42 | 0.09 | — | 8.12 |
| 20 | 15.06 | 33.94 | — | 0.49 | 0.12 | 61.80 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 8 | 25 | 1040 | 40 | 3 | 10 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1012.1 | 28.2 | | Ci | 3 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at L | $NO_2$-N μg-at L | $SiO_2$-Si μg-at L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.90 | 31.74 | 5.52 | 0.81 | 0.10 | 43.62 | 8.24 |
| 10 | 20.93 | 32.92 | — | 0.45 | 0.09 | 58.89 | 8.18 |
| 20 | 17.30 | 33.93 | 5.59 | 0.52 | 0.14 | 55.98 | 7.85 |
| 30 | 15.29 | — | — | 0.59 | 0.18 | 79.97 | 7.70 |
| 37 | 14.98 | — | — | — | — | — | 7.70 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 9 | 25 | 1022 | 13 | 7 | 8 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1012.2 | 29.1 | | Ci | 1 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.52 | 32.24 | 5.53 | 0.25 | 0.20 | 54.53 | 8 |
| 10 | 21.46 | 33.15 | 4.50 | 0.36 | 0.18 | 47.98 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 10 | 25 | 0758 | 11 | 7 | 4 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1012.1 | 27.6 | | Cs | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.68 | 33.34 | 5.22 | 0.15 | 0.14 | 32.72 | 8.16 |
| 10 | 21.29 | 33.53 | 5.88 | 0.42 | 0.14 | 29.08 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 11 | 25 | 6400 | 16 | 6 | 3 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1012.1 | 25.2 | | Cs | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.08 | 33.03 | 5.00 | 0.41 | 0.10 | 49.44 | 8.00 |
| 14 | 18.89 | 33.80 | 4.70 | 0.42 | 0.12 | 28.35 | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 12 | 25 | 1810 | 14 | 6 | 2 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1010.2 | 27.8 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.01 | 32.04 | 5.55 | 0.34 | 0.10 | 31.26 | 9.93 |
| 12 | 22.97 | 32.65 | 5.10 | 0.27 | 0.06 | 50.89 | 7.95 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 13 | 24 | 7250 | 15 | 6 | 3 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1010.2 | 31.1 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.91 | 31.78 | — | 0.35 | 0.06 | 23.26 | 9.98 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 14 | 24 | 1450 | 24 | 6 | 4 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1010.4 | 31.4 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.83 | 31.93 | 5.42 | 0.39 | 0.09 | 22.54 | 7.90 |
| 10 | 24.12 | 31.82 | 4.82 | 0.78 | 0.05 | 47.26 | 8.23 |
| 20 | 23.38 | 31.86 | 5.00 | — | 0.07 | 39.99 | 9.87 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 15 | 24 | 1215 | 33 | 6 | 3 | E 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1010.3 | 29.4 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.20 | 32.00 | 5.52 | 0.57 | 0.16 | 39.99 | 8.00 |
| 10 | 22.72 | 32.57 | 5.31 | 0.53 | 0.08 | 40.71 | 7.92 |
| 20 | 22.22 | 32.93 | 4.99 | 0.52 | 0.08 | 23.26 | — |
| 30 | 21.85 | 33.14 | 4.92 | 0.83 | 0.08 | 58.16 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 16 | 24 | 1055 | 18 | 5 | 12 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1010.2 | 27.2 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.93 | 32.80 | 5.83 | 0.50 | 0.08 | 26.17 | 8.00 |
| 15 | 22.69 | 33.84 | 5.68 | 0.53 | 0.14 | 36.35 | 7.82 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 17 | 24 | 0643 | 23 | 5 | 7 | SW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1010.1 | 26.1 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.37 | 34.00 | 5.52 | 0.39 | 0.04 | 27.63 | 7.90 |
| 10 | 22.03 | 33.38 | 5.75 | 0.57 | 0.06 | 40.71 | 8.10 |
| 20 | 19.90 | 33.66 | 5.73 | 0.69 | 0.09 | 29.08 | 8.07 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 18 | 23 | 1853 | 31 | 3 | 10 | S 2 | SE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1010.2 | 28.2 | | Cs | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg/at/L | $NO_2$-N μg at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 27.02 | 33.22 | 4.17 | 0.55 | 0.09 | 18.18 | 7.99 |
| 10 | 21.11 | 33.39 | 6.30 | 0.55 | 0.02 | 10.91 | 7.72 |
| 20 | 19.47 | — | 6.25 | 0.46 | 0.07 | 15.99 | 7.58 |
| 27 | 17.60 | — | — | — | — | — | 7.60 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 19 | 23 | 1750 | 55 | 3 | 12 | NE 2 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1010.3 | 28.7 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.22 | 33.25 | 5.67 | 0.25 | 0.03 | 19.63 | 8.16 |
| 10 | 23.88 | 33.30 | 6.04 | 0.39 | 0.02 | 10.91 | 8.10 |
| 20 | 19.20 | 33.82 | 5.43 | 0.28 | 0.03 | 19.63 | 8.00 |
| 30 | 17.87 | 33.99 | 5.83 | 0.42 | 0.04 | 47.26 | 7.97 |
| 53 | 16.06 | 34.32 | 5.00 | 0.52 | 0.01 | 27.63 | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 20 | 23 | 1650 | 45 | 3 | 10 | 0 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1010.4 | 31.2 | | Sc | | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.57 | 33.32 | 5.30 | 0.52 | 0.12 | 22.54 | 8.10 |
| 10 | 22.04 | 33.52 | 5.57 | 0.52 | 0.11 | 20.54 | 8.13 |
| 20 | 20.76 | 33.66 | 5.84 | 0.41 | 0.14 | 19.63 | 8.21 |
| 30 | 19.86 | 34.02 | 5.53 | 0.57 | 0.08 | 16.72 | 7.90 |
| 40 | 16.40 | 34.40 | 5.00 | 0.43 | 0.14 | 31.26 | 8.15 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 21 | 23 | 1518 | 38 | 6 | 5 | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1010.4 | 29.4 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.14 | 33.02 | — | 0.53 | 0.08 | 25.45 | 8.17 |
| 10 | 19.06 | 34.45 | 5.42 | 0.55 | 0.09 | 32.72 | 8.12 |
| 20 | 16.39 | 34.46 | 4.90 | 0.57 | 0.08 | 53.07 | — |
| 35 | 15.60 | 34.58 | 4.66 | 0.42 | 0.11 | 26.89 | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 22 | 23 | 1342 | 53 | 6 | 5 | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1010.2 | 27.2 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.30 | 33.99 | 5.80 | 0.46 | 0.10 | 26.89 | 8.00 |
| 10 | 18.44 | 34.15 | — | 0.43 | 0.09 | 26.89 | 8.02 |
| 20 | 17.15 | 34.32 | 5.21 | 0.49 | 0.06 | 23.26 | 8.09 |
| 30 | 15.76 | 34.55 | 4.69 | 0.55 | 0.05 | 26.89 | 8.03 |
| 50 | 14.89 | 34.74 | 4.41 | 0.60 | 0.12 | 29.08 | 8.11 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 23 | 23 | 1138 | 67 | 2 | 23 | SW 1 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1010.7 | 29.2 | | | 0 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 27.04 | 33.66 | 5.16 | 0.20 | 0.04 | 15.99 | 8.20 |
| 10 | 24.58 | 34.13 | 5.39 | 0.34 | 0.10 | 33.44 | 8.18 |
| 20 | 21.34 | 33.83 | 5.51 | 0.31 | 0.09 | 27.63 | 8.09 |
| 30 | 16.48 | 34.38 | 4.96 | 0.39 | 0.08 | 23.99 | 8.10 |
| 50 | 14.65 | 34.90 | 4.93 | 0.39 | 0.09 | 33.44 | 8.20 |
| 65 | 14.51 | 34.90 | — | 0.49 | 0.16 | 39.99 | 8.03 |

| St No. | Date | Time | Depth | Water Color | water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 24 | 23 | 0952 | 71 | 3 | 20 | SW 1 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1010.6 | 28.4 | | | 0 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg- t/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.69 | 33.53 | 5.21 | 0.32 | 0.04 | 36.35 | 8.00 |
| 10 | 24.95 | 33.74 | 5.34 | 0.31 | 0.08 | 34.90 | 8.05 |
| 20 | 20.33 | 33.83 | 5.49 | 0.32 | 0.09 | 29.08 | 8.00 |
| 30 | 16.80 | 34.85 | 5.02 | 0.25 | 0.10 | 29.81 | 8.90 |
| 50 | 15.59 | 33.85 | 4.61 | 0.31 | 0.10 | 49.63 | 8.00 |
| 67 | 14.62 | 34.89 | 4.71 | 0.57 | 0.12 | 43.71 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Water | Swell |
|---|---|---|---|---|---|---|---|
| C 25 | 23 | 0828 | 48 | 3 | 8 | 0 | 10 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1010.2 | 29.4 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.82 | 33.15 | — | 0.56 | 0.07 | 21.08 | 8.00 |
| 10 | 22.37 | 33.15 | 5.95 | 0.52 | 0.08 | 24.72 | 8.02 |
| 20 | 17.14 | 33.68 | 5.47 | 0.73 | 0.07 | 18.18 | 8.20 |
| 30 | 14.95 | 34.60 | 4.78 | 0.56 | 0.12 | 17.45 | 8.07 |
| 45 | 14.46 | 34.96 | 4.69 | 1.11 | 0.09 | 12.36 | 7.62 |

8월(August) 백두산(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 1 | 30 | 1015 | 25 | 5 | 5 | E 1 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1004 | 26.2 | | Ac | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.73 | 33.24 | 5.30 | 0 | 0.02 | 7.27 | 8.17 |
| 10 | 22.44 | 33.24 | 5.28 | 0 | 0.02 | 4.36 | 8.38 |
| 20 | 19.03 | 33.70 | 4.86 | 0.15 | 0.07 | 11.63 | 8.25 |
| 23 | 17.60 | 33.88 | 4.54 | 0.21 | 0.03 | 10.18 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 2 | 30 | 1102 | 24 | 5 | 8 | | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1004 | 22.4 | | As | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 27.25 | 32.85 | 5.22 | 0 | 0.07 | 7.27 | 8.39 |
| 10 | 23.34 | 33.13 | 5.28 | 0 | 0.09 | 10.91 | 8.56 |
| 22 | 17.83 | 33.88 | 4.56 | 0.29 | 0.05 | 12.36 | 8.39 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 3 | 30 | 1155 | 31 | 5 | 7 | | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1004 | 26.6 | | St | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.51 | 32.64 | 5.39 | 0.08 | 0 | 3.64 | 8.36 |
| 10 | 22.17 | 33.39 | 3.80 | 0 | 0 | 5.82 | 8.25 |
| 20 | 16.12 | 34.07 | 3.96 | 0.35 | 0 | 13.81 | 8.25 |
| 28 | 14.61 | 34.26 | 5.39 | 0 | 0.29 | 32.72 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4 | 30 | | 20 | 6 | 5 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1008.7 | 26.5 | | Cu | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | — | 33.17 | 5.38 | 0 | 0 | 26.89 | 8.40 |
| 10 | — | 33.41 | 4.97 | 0 | 0.02 | 12.36 | 8.29 |
| 20 | — | 34.06 | 4.23 | 0.24 | — | 23.26 | 8.26 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 5 | 30 | 1340 | 21 | 7 | 4 | 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 7 | 1007 | 26.9 | | Cu | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.37 | 33.13 | 5.28 | 0.11 | 0.10 | 21.81 | 8.32 |
| 10 | 20.76 | 33.47 | 4.38 | 0.28 | 0 | 21.81 | 8.28 |
| 18 | 16.01 | 34.01 | 4.05 | 0.17 | 0 | 18.18 | 8.41 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 6 | 30 | 1550 | 16 | 9 | 45 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.37 | 33.14 | 5.43 | 0.14 | 0.06 | 21.08 | 8.41 |
| 10 | 21.84 | 33.66 | 3.59 | 0.22 | 0.09 | 26.17 | 8.34 |
| 14 | 19.91 | 33.56 | 3.43 | 0.07 | 0.04 | 30.53 | 8.28 |

| St No. | Date | Time | Depth | Water Color. | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 7 | 30 | 1740 | 22 | 7 | 5 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | — | 33.11 | 5.89 | 0.08 | 0 | 19.63 | 8.47 |
| 10 | — | 33.33 | 4.12 | 0.15 | 0.06 | 26.89 | 8.45 |
| 20 | 18.08 | — | 3.70 | 0.07 | 0 | 21.81 | 8.12 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 8 | 30 | 1610 | 21 | 8 | 4 | S 2 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1007 | 25.7 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.27 | 33.06 | 7.58 | 0.04 | 0 | 21.81 | 8.48 |
| 10 | 21.89 | 33.32 | 3.80 | 0.29 | 0 | 28.35 | 8.45 |
| 18 | 18.08 | 33.64 | 7.24 | 0.15 | 0.04 | 71.97 | 8.12 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 9 | 30 | 1835 | 12 | 9 | | | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1007 | 25.5 | | St | 10 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at-L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.87 | 33.29 | — | 0.42 | 0.14 | 33.44 | 8.30 |
| 10 | 21.68 | 33.34 | 3.57 | 0 | 0.07 | 43.62 | 8.34 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 10 | 31 | 0735 | 12 | 5 | | SE 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1007 | 27.4 | | Cu | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.98 | 33.13 | 4.75 | 0.14 | 0.02 | 8.00 | 8.10 |
| 10 | 22.47 | 33.51 | 6.92 | 0.01 | 0.04 | 23.99 | 8.21 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 11 | 31 | 0835 | 18 | 5 | 75 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1007 | 25.6 | | St | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.06 | 33.17 | 4.63 | 0.34 | 0 | 24.72 | 8.34 |
| 10 | 21.81 | 33.34 | 4.77 | 0.24 | 0 | 14.54 | 8.42 |
| 15 | 18.82 | 33.62 | 4.11 | 0.35 | 0 | 13.81 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 12 | 31 | 1035 | 20 | 5 | 7 | SW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1007 | 28.1 | | Cu | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.49 | 32.50 | 4.65 | 0.10 | 0.08 | 18.18 | 8.34 |
| 10 | 24.57 | 33.07 | 4.20 | — | — | — | 8.40 |
| 17 | 23.27 | 33.19 | 4.63 | 0.14 | 0.03 | 25.45 | 8.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 13 | 31 | 1100 | 11 | 7 | 5 | S 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 2 | 1007 | 28.4 | | Cu | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.82 | 32.60 | 4.67 | 0 | 0.04 | 17.45 | 3.55 |
| 8 | 24.42 | 32.98 | 3.86 | — | — | — | 8.38 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 14 | 31 | 1130 | 25 | 5 | 3.8 | SW 3 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Diretion | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1006 | 29.4 | | Ci | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 27.40 | 32.27 | 4.65 | 0.07 | 0.05 | 22.54 | 8.29 |
| 10 | 23.09 | 33.06 | 4.33 | 0.06 | 0.07 | 25.45 | 8.32 |
| 23 | 21.55 | 33.22 | 3.91 | 0.03 | 0 | 23.26 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 15 | 31 | | 28 | 6 | 7 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amounn | |
| | | | | | | | |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.21 | 32.29 | 5.60 | 0.14 | 0 | 18.18 | 8.35 |
| 10 | 23.33 | 32.96 | 7.71 | 0.13 | 0 | 13.09 | 8.38 |
| 20 | 20.52 | 33.39 | 4.50 | 0.03 | 0 | 25.45 | 8.40 |
| 25 | 19.94 | 33.42 | 4.44 | 0.21 | 0 | 14.54 | 8.32 |

| St No. | Date | Time | Depth | Water Coror | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 16 | 31 | 1355 | 17 | 5 | 17 | SE 3 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 4 | 1005 | 28.4 | | Cu | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.60 | 32.97 | 8.75 | 0.32 | 0 | 2.91 | 8.39 |
| 10 | 21.41 | 33.15 | 5.47 | 0.20 | 0 | 6.54 | 8.43 |
| 15 | 19.37 | 33.47 | 4.65 | 0.24 | 0 | 29.08 | — |

| St No. | Date | Time | Depth | Water Cotor | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 17 | 31 | 1435 | | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | — | 32.94 | 4.97 | 0 | 0 | 17.45 | 8.50 |
| 10 | — | 33.27 | 5.39 | 0 | 0.04 | 7.27 | 8.49 |
| 底 | — | 33.57 | 4.97 | 0 | 0 | 21.81 | 8.42 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 18 | 31 | 1650 | 29 | 5 | 10 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1005 | 27.5 | | Cu | 5 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.67 | 32.98 | 5.07 | 0 | — | 20.36 | 8.43 |
| 10 | 22.24 | 33.17 | 5.23 | 0 | 0.012 | 19.63 | 8.52 |
| 20 | 17.76 | 33.71 | 4.33 | 0.18 | — | 21.81 | 8.55 |
| 25 | 16.99 | 33.84 | 3.23 | 0.13 | 0.09 | 29.08 | 8.35 |

9월 (September)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 19 | 1 | | 51 | 4 | 11 | SW 3 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S W | 4 | 1007 | 25.8 | | Cu | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.96 | 32.90 | 5.20 | 0 | 0.02 | 10.91 | 8.46 |
| 10 | 24.60 | 32.88 | 5.23 | 0 | 0 | 10.18 | 8.60 |
| 20 | — | 33.27 | 5.39 | 0.03 | 0.04 | 10.91 | 8.58 |
| 30 | 19.57 | 33.75 | 4.54 | 0 | 0.01 | 18.18 | 8.72 |
| 48 | 13.98 | 34.05 | — | 0.53 | 0 | 37.50 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | wells |
|---|---|---|---|---|---|---|---|
| C 20 | 1 | | 50 | | | SW 2 | SW 2 |

| Wind | | Baro. | AirTemp. | | cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1007 | 26.4 | | St | 8 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ ‰ | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.48 | 32.94 | 3.70 | 0 | 0.04 | 19.63 | 8.44 |
| 10 | 24.10 | 32.92 | 5.26 | 0 | 0.02 | 11.63 | 8.47 |
| 20 | 19.75 | 33.50 | — | 0 | 0 | 52.62 | 8.49 |
| 30 | 17.66 | 33.83 | 4.33 | 0 | 0 | 18.18 | 8.47 |
| 47 | 15.85 | 34.03 | 3.91 | 0 | 0.01 | 27.63 | 8.42 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 21 | 1 | | 68 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.90 | 33.38 | 5.07 | 0.29 | 0 | 3.64 | 8.46 |
| 10 | 22.01 | 33.36 | 5.18 | 0.14 | 0 | 26.17 | 8.60 |
| 20 | 20.00 | 33.59 | 4.88 | 0.11 | 0 | 25.45 | 8.60 |
| 30 | 18.00 | 33.84 | 4.86 | 0.07 | 0 | 69.07 | — |
| 50 | 15.21 | 34.17 | 4.01 | 0.36 | 0 | 31.26 | 8.67 |
| 65 | 14.89 | 34.21 | 3.90 | 0.46 | 0.01 | 34.17 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 22 | 1 | | 58 | 4 | 3 | SW 2 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1007 | 27.4 | | Cu | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.61 | 32.96 | 4.88 | 0 | 0 | 15.27 | 8.50 |
| 10 | 24.57 | 33.02 | 5.09 | 0 | 0 | 14.54 | 8.51 |
| 20 | 21.31 | 33.46 | 4.89 | 0.14 | 0.05 | 15.99 | 8.39 |
| 30 | 15.31 | 34.11 | 4.10 | 0.18 | 0.03 | 30.53 | 8.43 |
| 55 | 15.11 | 34.29 | 4.33 | 0.35 | 0 | 29.08 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 23 | 1 | | 58 | 4 | 3 | SW 3 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1006 | 27.5 | | Cu | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.57 | 32.01 | 4.86 | 0 | 0 | 19.91 | 8.43 |
| 10 | 27.08 | 32.94 | 5.38 | 0 | 0 | 14.54 | 8.30 |
| 20 | 20.39 | 33.54 | 4.80 | 0 | 0 | 18.18 | 8.51 |
| 30 | 15.80 | 34.08 | 4.26 | 0.07 | 0 | 31.26 | 8.32 |
| 55 | 14.24 | 34.26 | 4.77 | 0.08 | 0 | 45.07 | 8.31 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 24 | 1 | | 70 | 4 | 15 | SW 1 | E 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1006 | 28.2 | | Ci | 4 | |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 26.20 | 32.85 | 4.67 | 0.60 | 0 | 26.89 | 8.39 |
| 10 | 27.64 | 32.77 | 4.25 | 0 | 0 | 10.18 | 8.43 |
| 20 | 19.96 | 33.06 | 5.73 | 0 | 0 | 8.72 | 8.44 |
| 30 | 19.38 | 33.63 | 5.66 | 0.01 | 0 | 9.45 | 8.42 |
| 50 | 15.80 | 34.12 | 4.33 | 0.41 | 0 | 18.18 | 8.27 |
| 67 | 14.36 | 34.28 | 4.01 | 0.49 | 0 | 31.99 | 8.29 |

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 25 | 1 | | 55 | 4 | 20 | SW 2 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1004 | 27.4 | | Ci | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 28.13 | 32.77 | 4.75 | 0 | 0 | 12.36 | 8.29 |
| 10 | 27.94 | 32.83 | 4.86 | 0 | 0.07 | 10.18 | 8.43 |
| 20 | 21.70 | 33.42 | 5.49 | 0 | 0.08 | 10.18 | 8.55 |
| 30 | 17.93 | 33.89 | 4.14 | 0.32 | 0.03 | 15.27 | 8.49 |
| 50 | 15.07 | 34.28 | 4.80 | 0.29 | 0.04 | 23.99 | 8.24 |

9월 (September) 백두산(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 1 | 20 | 1610 | 27 | 5 | 10 | NE 4 | NE 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1008 | 22.0 | 22.8 | Cu | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.85 | 31.74 | 7.07 | 0.20 | 0.11 | 44.35 | 7.60 |
| 10 | 23.51 | 32.04 | 4.97 | 0.18 | 0.22 | 39.99 | 7.60 |
| 25 | 22.29 | 32.80 | 4.42 | 0.21 | 0.15 | 38.53 | 7.70 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 2 | 20 | 1650 | 29 | 6 | 11 | NE 4 | NE 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1000.8 | | | St | 3 | BC |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.69 | 31.38 | 5.58 | 0.07 | 0.04 | 41.44 | 7.78 |
| 10 | 23.83 | 31.89 | 5.24 | 0.01 | 0.06 | 30.53 | 7.50 |
| 20 | 23.74 | 31.52 | 4.61 | 0.07 | 0.05 | 29.08 | 7.81 |
| 25 | 23.60 | 32.71 | 4.87 | 0.04 | 0.06 | 34.17 | 7.79 |

| StNo. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 3 | 20 | 1735 | 35 | 9 | 4 | NE 4 | NE 5 |

| Wind | | Baro. | Air Temp. | | Cloud | | Wearher |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 5 | 1008 | | | Cu | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.69 | 31.86 | 5.22 | 0.03 | 0 | 43.62 | — |
| 10 | 23.48 | 31.94 | 5.12 | 0.10 | 0.04 | 36.35 | 8.10 |
| 20 | 23.30 | 32.15 | 4.61 | 0.14 | 0.12 | 34.17 | 7.82 |
| 30 | 22.84 | 32.63 | 4.48 | 0.07 | 0.04 | 35.62 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4 | 20 | 1800 | 22 | | | NE 3 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1000.8 | | | St-Cu | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.37 | 31.25 | 5.34 | 0.14 | 0.12 | 45.07 | 7.70 |
| 10 | 23.70 | 31.42 | 5.10 | 0.14 | 0 | 40.71 | 7.55 |
| 20 | 23.61 | 31.82 | 4.51 | 0.14 | 0.05 | 47.98 | 7.80 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4′ | 20 | 1915 | 20 | | | SE 2 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | | 1010 | | | St | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.31 | 31.88 | 4.81 | 0.24 | 0 | 44.35 | 7.52 |
| 10 | 23.60 | 31.91 | 4.61 | 0.07 | 0 | 43.62 | 7.50 |
| 18 | 23.61 | 31.98 | 4.79 | 0.35 | 0 | 45.80 | 7.88 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 5 | 20 | 1940 | 23 | | | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1009 | | | Sc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.47 | 31.94 | 4.69 | 0.14 | 0 | 47.26 | 7.50 |
| 10 | 23.50 | 32.05 | 4.48 | 0.18 | 0 | 47.26 | — |
| 20 | 23.46 | 32.07 | 4.25 | 0.14 | 0 | 42.17 | 7.70 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 6 | 20 | 2030 | 20 | | | NE 2 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1009 | | | Cs | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.58 | 31.96 | 4.97 | 0.14 | 0 | 39.25 | 7.35 |
| 10 | 23.69 | 31.89 | 5.04 | 0.36 | 0 | 39.99 | 7.38 |
| 18 | 23.68 | 32.74 | 4.32 | 0.53 | 0 | [illegible] | 7.[illegible] |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 7 | 20 | 2240 | 24 | | | NE 1 | NE 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1001 | 26.6 | 19.8 | C s | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.27 | 32.24 | 4.71 | 0.32 | 0 | 41.44 | — |
| 10 | 23.60 | 32.37 | 5.27 | 0.24 | 0.02 | 40.71 | 7.56 |
| 20 | 23.70 | 32.74 | 4.61 | 0.29 | 0 | 40.71 | 7.55 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 8 | 20 | 2315 | | | | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1010 | 20.9 | 19 6 | Cs | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.23 | 32.56 | 5.07 | 0.28 | 0 | 29.08 | 7.75 |
| 10 | 23.50 | 32.57 | 5.24 | 0.27 | 0.02 | 36.35 | 7.32 |
| 底 | 23.69 | 32.93 | 4.20 | 0.36 | 0 | 43.62 | 7.45 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 9 | 21 | 0725 | 15 | 8 | 6 | N 2 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1011 | 21.1 | 19.9 | C | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.39 | 32.42 | 4.77 | 0.24 | 0 | 41.44 | 7.95 |
| 10 | 23.44 | 32.43 | 5.02 | 0.28 | 0 | 31.99 | 7. |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 10 | 25 | 0855 | 13 | 10 | 3 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1016 | 22 1 | 20 5 | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.72 | 32.24 | 5.12 | 0.04 | 0.05 | 23.26 | 7.67 |
| 10 | 23.55 | 32.23 | 5.22 | 0.10 | 0 | 26.17 | 9.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 11 | 25 | 1000 | 16 | 8 | 3 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1015 | 21.7 | 20.9 | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.50 | 32.54 | 5.24 | 0.10 | 0 | 18.90 | 7.93 |
| 14 | 23.45 | 32.38 | 5.12 | 0.15 | 0.02 | 17.45 | 7.79 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 12 | 25 | 1040 | 10 | 8 | 4 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1015 | 22.6 | 29.2 | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.64 | 32.43 | 4.81 | 0.07 | 0 | 25.45 | 7.79 |
| 8 | 23.32 | 32.48 | 4.71 | — | — | — | 7.95 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 13 | 25 | 1105 | 11 | 9 | 4 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1017 | 22.1 | 20.8 | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.36 | 32.47 | 5.12 | 0.07 | 0 | 28.35 | — |
| 7 | 23.17 | 32.46 | 4.40 | 0.18 | 0.01 | 25.45 | 7.57 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 14 | 25 | 1140 | 26 | 9 | 4 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1015 | 21.7 | 20.4 | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.16 | 32.42 | 5.24 | 0.24 | 0 | 26.89 | 7.71 |
| 10 | 23.23 | 32.42 | 4.97 | 0.22 | 0 | 27.63 | 7.19 |
| 24 | 23.10 | 32.47 | 5.12 | 0.22 | 0 | 27.63 | 7.39 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 15 | 25 | 1300 | 31 | 9 | 4 | NE 2 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1017 | 22.9 | 21.2 | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.79 | 32.19 | 5.49 | 0.21 | 0 | 23.99 | 7.49 |
| 10 | 23.31 | 32.17 | 5.12 | 0.28 | 0 | 27.63 | 7.86 |
| 20 | 23.30 | 32.17 | 4.94 | 0.22 | 0 | 26.89 | 7.58 |
| 27 | 23.38 | 32.23 | 4.89 | 0.39 | 0 | 34.17 | 7.48 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 16 | 25 | 1400 | 18 | 9 | 5 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1016 | 22.7 | 20.9 | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.30 | 32.32 | 5.63 | 0.21 | 0.06 | 27.63 | 7.86 |
| 10 | 23.70 | 32.31 | 5.34 | 0.20 | 0.03 | 26.17 | 7.62 |
| 15 | 23.51 | 32.35 | 4.86 | 0.14 | 0.03 | 29.08 | 7.75 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 17 | 25 | 1460 | 19 | 9 | 5 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1018 | 22.6 | 21.0 | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.31 | 32.26 | 5.35 | 0.15 | — | 22.54 | 7.90 |
| 10 | 23.68 | 32.27 | 4.81 | 0.20 | 0.06 | 27.63 | 7.90 |
| 16 | 23.67 | 32.28 | 4.81 | 0.14 | 0.01 | 24.72 | 7.80 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 18 | 25 | 0730 | 31 | 7 | | NE 1 | NE 1 |

| Wind | | Baro. | Air Tem·d | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1015 | 20.1 | 20.0 | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.69 | 32.42 | 4 94 | 0.14 | 0.03 | 17.45 | 7.53 |
| 10 | 24.61 | 32.47 | 4.81 | 0.18 | 0.02 | 22.54 | 7.78 |
| 20 | 24.10 | 32.38 | 5.12 | 0 | 0.10 | 23.99 | 7.62 |
| 28 | 23.90 | 32.47 | 3.93 | 0.25 | 0.48 | 34.90 | 7.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 19 | 24 | 1825 | 50 | 7 | | NW 1 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1016 | 22.7 | 21.2 | | 0 | B] |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.41 | — | 5.02 | 0.06 | 0 | 18.18 | 8.01 |
| 10 | 24.55 | 32.38 | 4.91 | 0.13 | 0.02 | 23.26 | 7.85 |
| 20 | 24.50 | 32.35 | 5.02 | 0.07 | 0 | 18.18 | 8.42 |
| 30 | 24.47 | 32.39 | 5.02 | 0.06 | 0 | 17.45 | — |
| 47 | 17.50 | — | — | — | — | — | 8.00 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 20 | 24 | 1725 | 41 | 9 | | NW 2 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 15 | 1010 | 22.1 | 19.7 | | 0 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.40 | 32.38 | 5.04 | 0.07 | 0 | 18.18 | 8.09 |
| 10 | 24.38 | 32.38 | 5.02 | 0.10 | 0 | 21.81 | 8.15 |
| 20 | 24.31 | 32.28 | 5.00 | 0 | 0 | 96.60 | 8.12 |
| 30 | 24.58 | 32.47 | 5.12 | 0.10 | 0 | 23.99 | 8.00 |
| 38 | 23.85 | 32.62 | 4.71 | 0.10 | 0.18 | 21.81 | 7.99 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 21 | 24 | 1630 | 52 | 9 | 11 | NW 3 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1013 | 22.5 | 20.3 | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.35 | 32.30 | 5.14 | 0.11 | 0.04 | 15.99 | 8.02 |
| 10 | 24.10 | 32.47 | 4.62 | 0.20 | 0.15 | 26.12 | 7.80 |
| 20 | 21.24 | 32.04 | 4.12 | — | — | — | — |
| 30 | 20.50 | 33.11 | 4.29 | 0.27 | 0.02 | 34.17 | 7.88 |
| 50 | 16.30 | 33.85 | 4.11 | 0.28 | 0 | 39.26 | 7.67 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 22 | 24 | 1525 | 54 | 9 | 6 | NW 3 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1011 | 22.2 | 20.5 | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.13 | 32.53 | 5.04 | 0.32 | — | 29.08 | 7.70 |
| 10 | 22.20 | 32.64 | 4.91 | 0.27 | 0.02 | 26.82 | 7.70 |
| 20 | 22.13 | 32.82 | 4.81 | 0.34 | 0.08 | 26.82 | — |
| 30 | 21.19 | 32.67 | 4.56 | 0.24 | 0.07 | 27.63 | 7.49 |
| 50 | 15.18 | 34.07 | 4.01 | 0.48 | 0 | 41.44 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 23 | 24 | 1405 | 64 | 8 | 5 | NE 2 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 25 | 1009 | 22.0 | 20.5 | | 0 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.20 | 32.54 | 5.02 | 0.01 | 0 | 11.63 | 7.31 |
| 10 | 24.17 | 32.74 | 5.10 | 0.08 | 0 | 19.63 | 7.65 |
| 20 | 23.12 | 32.51 | 4.69 | 0.11 | 0.10 | 41.44 | 8.00 |
| 30 | 21.31 | 33.03 | 4.20 | 0.22 | 0 | 34.17 | 7.81 |
| 50 | 15.52 | 34.08 | 5.89 | 0.55 | 0.22 | 40.71 | 7.59 |
| 60 | 15.08 | 34.16 | 3.91 | 0.31 | 0.02 | 43.62 | 7.43 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 24 | 24 | 1030 | 80 | 8 | 5 | NE 2 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1012 | 22.6 | 20.9 | Ci | 0 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 25.70 | 33.36 | 4.89 | 0 | 0 | 15.99 | 7.48 |
| 10 | 25.51 | 33.29 | 4.81 | 0 | 0.04 | 18.18 | 7.94 |
| 20 | 25.55 | 33.29 | 4.53 | 0.04 | 0 | 25.45 | 8.15 |
| 30 | 22.37 | 33.16 | 4.97 | 0.28 | 0.02 | 31.26 | 7.74 |
| 50 | 14.72 | 34.28 | 4.51 | 0.24 | 0.03 | 46.53 | 7.26 |
| 75 | 14.29 | 34.22 | 3.97 | 0.57 | 0.04 | 15.27 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 25 | 24 | 0940 | 60 | 8 | 6 | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1012 | 22.5 | 20.2 | | 0 | B |

OHSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.12 | 32.43 | 5.22 | 0.14 | 0 | 26.89 | 7.85 |
| 10 | 24.16 | 32.54 | 4.90 | 0 | 0 | 27.63 | 7.90 |
| 20 | 22.19 | 32.78 | 4.51 | 0 | 0 | 26.17 | 7.85 |
| 30 | 17.86 | 33.56 | 4.01 | 0.15 | 0 | 44.44 | 7.58 |
| 57 | 14.78 | 34.19 | 3.99 | 0.24 | 0.02 | 45.07 | 7.29 |

10월(October) 백두산(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 1 | 9 | 0800 | 28 | | 6 | NE 3 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1021 | 17.9 | 15.6 | St | 5 | Bc |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 24.08 | — | — | — | — | — | 8.10 |
| 10 | 21.10 | 32.60 | 4.97 | 0 | 0 | 21.08 | 8.40 |
| 20 | 21.34 | 32.86 | — | 0 | 0 | 21.81 | 7.76 |
| 25 | 20.84 | — | 4.71 | 0.18 | 0 | — | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 2 | 9 | 0840 | 30 | | 6 | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1021 | 15.9 | | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.83 | 32.83 | 5.04 | 0.03 | 0 | 23.99 | 7.92 |
| 10 | 21.46 | 32.82 | 5.10 | 0 | 0.02 | 21.08 | 7.98 |
| 20 | 21.11 | 33.09 | 4.61 | 0.10 | 0 | 25.45 | 7.64 |
| 28 | 19.29 | 33.11 | 5.02 | 0.17 | 0.14 | 26.89 | 7.98 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 3 | 9 | 0930 | 33 | | 8 | NE 3 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1021 | 16.4 | | Ct | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.40 | 32.99 | 4.40 | 0.22 | 0.04 | 13.81 | 8.25 |
| 10 | 21.31 | 32.94 | 5.02 | 0.10 | 0 | 16.72 | 8.18 |
| 20 | 22.26 | 33.17 | 5.14 | 0.10 | 0 | 18.18 | 8.21 |
| 30 | 19.46 | 33.52 | 3.99 | 0.21 | 0.16 | 38.53 | 7.65 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4 | 9 | 1010 | 22 | | 5 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 1 | 1021 | 20.9 | 14.8 | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $S_2iO$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.00 | 32.64 | 5.16 | 0.15 | 0.05 | 25.45 | 7.82 |
| 10 | 21.08 | 32.66 | 4.91 | 0.14 | 0 | 28.35 | — |
| 20 | 21.48 | 32.75 | — | — | 0.05 | 57.43 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 5 | 9 | 1105 | 25 | | 7 | NNW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1021 | 23.7 | 18.9 | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.40 | 32.47 | 6.19 | 0.18 | 0.06 | 18.90 | 7 27 |
| 10 | 22.69 | 32.41 | — | 0.22 | 0 | 20.36 | 7.52 |
| 22 | 21.79 | 32.40 | 5.27 | 0.14 | 0 | 21.08 | 7.50 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 6 | 9 | 1130 | 19 | 11 | 3 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 0 | 1020 | 23.1 | 22.0 | St | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 23.30 | 32.44 | 6.40 | 0.35 | 0 | 25.45 | 7.29 |
| 10 | 21.61 | 32.36 | 6.35 | 0 35 | 0 | 28.35 | 7.45 |
| 15 | 21.79 | 32.36 | 5.84 | 0.18 | 0 | 23.26 | 7.35 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 7 | 9 | 1208 | 26 | 8 | 6 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | | 1020 | 23.4 | 22.6 | St | 5 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.50 | — | 6.25 | 0 42 | 0.06 | 26.89 | 7.10 |
| 10 | 21.83 | 32.42 | 5.96 | 0.15 | 0 | 24.72 | 7.94 |
| 24 | 21.90 | 32.43 | 5.84 | 0.10 | 0.02 | 21.81 | 7.93 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 8 | 9 | 1230 | 24 | 7 | 8 | NNW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 1 | 1020 | 26.5 | 21.5 | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.80 | 32.55 | — | 0.22 | 0.10 | 15.99 | — |
| 10 | 21 64 | 32.46 | — | 0.21 | — | 22.54 | — |
| 20 | 21.66 | 32.50 | — | 0.41 | — | 19.63 | — |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 9 | 9 | 1255 | | | | NNW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 1 | 1020 | 27.5 | 21.7 | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.60 | 32.58 | — | 0.28 | — | 55.98 | |
| 10 | 21.63 | 32.57 | — | 0.27 | — | 18.90 | |
| 底 | 21.69 | 32.57 | — | 0.28 | — | 15.27 | |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 10 | 9 | 1520 | 16 | 10 | 2 | W 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| W | 1 | 1018 | 22.8 | 15.4 | Ci | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.70 | 32.81 | 5.02 | 0.24 | — | 37.80 | 7.65 |
| 10 | 22.12 | 32.62 | — | 0.07 | — | 37.80 | 7.50 |
| 14 | 22.13 | 32.62 | — | — | — | — | 7.73 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 11 | 9 | 1625 | 18 | 8 | 3 | NNW 1 | NNW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 1 | 1018 | 22.9 | 14.7 | Ci | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22 30 | 32.72 | 7.94 | 0.35 | — | 32.72 | 7.88 |
| 10 | 21.54 | 32.59 | — | 0.25 | — | 44.35 | 7.85 |
| 15 | 21.64 | 32.59 | — | 0.27 | — | 24.72 | 7.82 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 12 | 10 | 0922 | 20 | 10 | 2 | NE 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1019 | 19.0 | 14.9 | Cc | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.00 | — | 7.06 | 0.18 | — | 26.17 | 7.76 |
| 10 | 21.34 | — | 5.22 | 0.52 | — | 26.17 | 7.92 |
| 18 | 20.85 | — | 5.22 | 0.35 | — | 26.89 | 7.54 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 13 | 10 | 1045 | 16 | 11 | 2 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1019 | 22.6 | 18.5 | Cc | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.20 | 32.62 | 8.72 | 0.38 | — | 26.17 | 7.35 |
| 10 | 20.91 | 32.59 | 5.38 | — | — | — | 7.35 |
| 13 | 21.35 | 32.59 | 5.02 | 0.50 | — | 18.18 | 7.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 14 | 10 | 1115 | 27 | 10 | 2 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1019 | 23.1 | 18.4 | Cc | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg/at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.80 | 32.59 | 5.75 | 0.21 | — | 25.45 | 7.68 |
| 10 | 21.17 | 32.57 | 5.53 | 0.45 | — | 29.08 | 7.50 |
| 20 | 21.11 | 32.59 | — | 0.18 | — | 36.35 | 7.70 |
| 25 | 21.08 | 32.57 | 5.82 | 0.52 | — | 23.35 | 7.23 |

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 15 | 10 | 1230 | 38 | 10 | 3 | SSW 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1018 | 27.4 | 22.1 | Cc | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.90 | 32.41 | 5.84 | 0.42 | — | 38.35 | 7.80 |
| 10 | 21.53 | 32.33 | 5.43 | 0.41 | — | 37.08 | 7.70 |
| 20 | 21.51 | 32.32 | 5.51 | 0.31 | — | 33.44 | 7.78 |
| 30 | 21.53 | 32.34 | 5.55 | 0.32 | — | 34.90 | 7.88 |
| 35 | 21.52 | 32.34 | 5.53 | 0.29 | — | 67.61 | 7.57 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 16 | 10 | 1335 | 21 | 10 | 2 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1017 | 22.9 | 16.2 | St | 2 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.75 | 33.62 | 5.08 | 0.27 | — | 24.72 | 7.45 |
| 10 | 21.82 | 32.54 | 7.19 | 0.45 | — | 25.45 | 8.03 |
| 18 | 21.90 | 32.53 | 5.12 | 0.37 | — | 28.35 | 7.45 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 17 | 10 | 1405 | 23 | 9 | 3 | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1017 | 23.4 | 16.1 | St | 2 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 22.30 | 32.73 | 5.04 | 0.21 | — | 33.44 | 7.56 |
| 10 | 22.43 | 32.60 | 5.02 | 0.21 | — | 33.35 | 7.87 |
| 20 | 22.06 | 32.57 | 4.71 | 0.25 | — | 21.81 | 7.90 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 18 | 20 | 0520 | 36 | | | NW 3 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1016 | 16.2 | | As | 2 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.32 | 33.20 | 4.91 | 0.14 | — | 10.91 | — |
| 10 | 21.32 | 33.21 | 5.02 | 0.11 | — | 18.90 | 7.92 |
| 20 | 21.32 | 33.23 | 4.97 | 0.17 | — | 15.27 | 8.13 |
| 34 | 21.34 | 33.23 | 5.07 | 0.14 | — | 19.63 | 8.13 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 19 | 22 | 0840 | 51 | 6 | 9 | E 3 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1014 | 19.1 | | Stj | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.80 | 33.38 | 5.16 | 0.03 | — | 10.91 | 8.04 |
| 10 | 20.87 | 33.33 | 5.22 | 0.14 | — | 19.63 | 8.14 |
| 20 | 20.84 | 33.35 | 5.14 | 0.10 | — | 16.72 | 8.18 |
| 30 | 20.77 | 33.39 | 5.15 | 0.13 | — | 29.81 | 7.45 |
| 48 | 17.36 | 33.84 | 3.79 | 0.66 | — | 36.35 | 7.75 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 20 | 22 | 0940 | 58 | 6 | 4 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.55 | 33.30 | 5.22 | 0.27 | — | 21.81 | 8.06 |
| 10 | 20.55 | 33.32 | 4.91 | 0.24 | — | 22.54 | 8.23 |
| 20 | 20.49 | 33.35 | 4.81 | 0.24 | — | 20.36 | 7.75 |
| 30 | 19.87 | 33.49 | 4.51 | 0.50 | — | 21.81 | 7.88 |
| 55 | 17.68 | 33.82 | 3.89 | 0.07 | — | 50.16 | 8.02 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 21 | 22 | 1130 | 76 | 5 | 12 | E 2 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1013 | 19.8 | | St | 2 | B |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.30 | 33.52 | 5.07 | 0.14 | — | 13.81 | 7.75 |
| 10 | 20.11 | 33.44 | 5.73 | 0.18 | — | 14.54 | 8.15 |
| 20 | 20.03 | 33.46 | 5.12 | 0.06 | — | 15.99 | 7.92 |
| 30 | 19.78 | 33.78 | 5.63 | 0.21 | — | 18.18 | 8.05 |
| 50 | 17.97 | 33.92 | 4.61 | 0.38 | — | 23.26 | 7.85 |
| 73 | 16.57 | 33.61 | 4.40 | 0.49 | — | 24.72 | 7.80 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 22 | 22 | 2015 | 58 | | | NW 3 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1012 | 19.9 | | As | 9 | C |

OBSERVED

| Z *m* | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.51 | 33.63 | 5.32 | 0.22 | — | 15.27 | 7.90 |
| 10 | 19.48 | 33.63 | 5.18 | 0.28 | — | 16.72 | 7.95 |
| 20 | 19.20 | 33.69 | 4.79 | 0.27 | — | 10.18 | — |
| 30 | 18.04 | 33.95 | 4.42 | 0.36 | — | 22.54 | 7.80 |
| 55 | 16.38 | 33.42 | 3.79 | 0.70 | — | 24.72 | 8.08 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 23 | 22 | 2130 | 62 | | | NW 3 | NW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1013 | 19.8 | | As | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 21.40 | 33.83 | 5.15 | 0.07 | — | 5.82 | 8.50 |
| 10 | 21.34 | 33.80 | 5.20 | 0.13 | — | 3.64 | 8.52 |
| 20 | 20.88 | 33.81 | 5.07 | 0.07 | — | 8.00 | 8.38 |
| 30 | 18.64 | 33.95 | 4.40 | 0.41 | — | 22.54 | 8.15 |
| 50 | 16.39 | 34.42 | 3.69 | 0.31 | 0 | 16.72 | 7.75 |
| 60 | 16.27 | 34.49 | 3.79 | 0.53 | 0 | 19.63 | 7.60 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 24 | 24 | 2230 | 65 | | | NW 3 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1013 | 19.8 | | As | 9 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 20.81 | 33.71 | 5.16 | 0 | 0 | 8.00 | 8.03 |
| 10 | 20.69 | 33.72 | 5.22 | 0 | 0.02 | 31.99 | 8.13 |
| 20 | 20.65 | 33.73 | 5.22 | 0 | 0.02 | 10.91 | 8.29 |
| 30 | 20.61 | 33.80 | 5.32 | 0 | 0.02 | 4.36 | 8.68 |
| 50 | 18.96 | 34.00 | 4.46 | 0.15 | 0.05 | 15.27 | 8.11 |
| 60 | 16.26 | 34.47 | 3.69 | — | 0.04 | 24.72 | 7.73 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 25 | 22 | 2310 | 52 | | | NW 3 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 3 | 1013 | 18.8 | | As | 8 | C |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.84 | 33.58 | 5,38 | 0.14 | 0.03 | 15.27 | 8.00 |
| 10 | 19.86 | 33.65 | 5.22 | 0.20 | 0 | 7.27 | 8.16 |
| 20 | 19.85 | 33.66 | 5.18 | 0.20 | 0 | 20.36 | 8.08 |
| 30 | 19.73 | 33.69 | 5.02 | 0.08 | 0 | 24.72 | 7.85 |
| 50 | 15.98 | 34.47 | 3.94 | 0.29 | 0 | 25.45 | 7.70 |

11월(November) 백두산(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 1 | 17 | 1730 | 24 | | | NE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1026 | 13.2 | | Ct | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.72 | 33.41 | 5.69 | 0.04 | — | 12.36 | 8.26 |
| 10 | 15.41 | 33.51 | 5.59 | 0.04 | — | 23.99 | 8.25 |
| 20 | 15.47 | 33.60 | 5.67 | 0.18 | — | 18.18 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 2 | 17 | 1640 | 25 | 4 | | NE 4 | NE 4 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1026 | 13.0 | | St | 3 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.50 | 33.34 | 6.19 | 0.06 | — | 10.18 | 8.12 |
| 10 | 16.50 | 33.28 | 5.67 | 0.01 | — | 7.27 | 8.24 |
| 20 | 15.88 | 33.51 | 5.98 | 0.08 | — | 19.63 | 8.15 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 3 | 17 | 1540 | 31 | 4 | 7 | NE 3 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 4 | 1026 | 16.0 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.50 | 33.31 | 5.88 | 0 | — | 10.91 | 8.25 |
| 10 | 16.43 | 33.35 | 5.90 | 0.08 | — | 12.36 | 8.20 |
| 20 | 16.12 | 33.54 | 5.67 | 0.07 | — | 10.91 | 8.13 |
| 28 | 15.94 | 33.59 | 5.28 | 0.17 | — | 19.63 | 8.15 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 4 | 17 | 1500 | 16 | 10 | 2 | NW 1 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1027 | 16.0 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ cc/L | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.12 | 31.45 | 5.77 | 0.03 | — | 26.17 | 8.25 |
| 14 | 15.11 | 33.43 | 5.59 | 0.27 | — | 18.90 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 5 | 17 | 1415 | 21 | 10 | 3 | NW 1 | NW1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 1 | 1027 | 16.4 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.51 | 33.08 | 5.77 | 0.18 | — | 27.63 | 8.15 |
| 10 | 15.43 | 33.10 | 5.86 | 0 | — | 23.99 | 8.22 |
| 19 | 15.38 | 33.13 | 5.75 | 0.22 | — | 18.18 | 8.12 |

| St No | Date | Time | Depth | Water Color | Water Trans. | Wave | Swel l |
|---|---|---|---|---|---|---|---|
| C 6 | 17 | 1330 | 18 | 10 | 6 | NW 1 | NW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NW | 2 | 1026 | 14.2 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.21 | 32.81 | 5.66 | 0.14 | — | 14.54 | 8.20 |
| 10 | 14.99 | 32.81 | 5.78 | 0.04 | — | 21.81 | 8.10 |
| 15 | 14.84 | 32.78 | 5.98 | 0.03 | — | 25.45 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 7 | 17 | 1300 | 25 | 10 | 6 | NE 7 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1026 | 13.7 | | | 0 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.53 | 32.86 | 5.87 | 0.07 | — | 22.24 | 8.[illegible] |
| 10 | 15.45 | 32.86 | 5.88 | 0.21 | — | 16.72 | 8.[illegible] |
| 20 | 15.42 | 32.88 | 5.96 | 2.24 | — | 15.27 | 8.[illegible] |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 8 | 17 | 1225 | 22 | 9 | 7 | N 2 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1027 | 14.2 | | | | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.72 | 32.79 | 5.76 | 0.14 | — | 10.91 | 8.22 |
| 10 | 15.13 | 32.77 | 5.67 | 0.01 | — | 21.08 | 8.25 |
| 20 | 15.61 | 32.80 | 5.77 | 0.18 | — | 10.91 | 8.18 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 9 | 17 | 1155 | 20 | 10 | 4 | N 2 | N 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1027 | 15.0 | | | | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.20 | 32.92 | 5.98 | 0.07 | — | 14.54 | 8.25 |
| 10 | 14.92 | 33.09 | 5.86 | 0.07 | — | 18.18 | 8.25 |
| 18 | 14.93 | 33.16 | 6.18 | 0.03 | — | 10.91 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 10 | 17 | 0930 | 13 | 10 | 4 | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1026 | 13.2 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.35 | 33.24 | 6.17 | 0.07 | — | 7.27 | 8.28 |
| 10 | 14.88 | 33.25 | 6.28 | 0.21 | — | — | 8.25 |

| S No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 11 | 17 | 0830 | 19 | 10 | 5 | SE 1 | SE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ES | 2 | 1026 | 13.6 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.22 | 33.43 | 6.06 | 0.14 | — | 10.91 | 8.38 |
| 10 | 16.21 | 33.45 | 6.08 | 0.10 | — | 3.64 | 8.33 |
| 16 | 16.30 | 33.44 | 6.08 | 0.10 | — | 7.27 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 12 | 16 | 1350 | 13 | | 3 | NE 1 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1024 | 15.2 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.11 | 32.99 | 6.08 | 0.36 | — | 26.89 | 8.30 |
| 10 | 13.24 | 32.90 | 6.29 | 0.28 | — | 20.36 | 8.32 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 13 | 16 | 1330 | 15 | 9 | 3 | NE 1 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1024 | 15.4 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 13.71 | 32.77 | 6.31 | 0.18 | — | 18.18 | 8.28 |
| 13 | 14.22 | 32.95 | 6.47 | 0.22 | — | 19.63 | 8.23 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 14 | 16 | 1300 | 30 | 9 | 2 | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1024 | 14.0 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.15 | 32.56 | 6.08 | 0.25 | — | 18.18 | 8.20 |
| 10 | 14.12 | 32.54 | 6.06 | 0.13 | — | 29.08 | 8.22 |
| 20 | 13.51 | 32.59 | 6.91 | 0.14 | — | 22.54 | 8.20 |
| 27 | 14.07 | 32.61 | 6.21 | 0.21 | — | 22.54 | 8.25 |

| S No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Sewll |
|---|---|---|---|---|---|---|---|
| C 15 | 16 | 1120 | 32 | 9 | 3 | NE 2 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Directon | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1026 | 11.6 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 14.49 | 32.57 | 6.06 | 0.08 | — | 18.18 | 8.30 |
| 10 | 14.60 | 32.61 | 5.88 | 0.24 | — | 22.54 | 8.28 |
| 20 | 14.72 | 32.72 | 6.08 | 0.17 | — | 19.63 | 8.20 |
| 30 | 15.24 | 32.96 | 5.88 | 0.07 | — | 26.17 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 16 | 16 | 1010 | 19 | 9 | 4 | N 3 | N 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 4 | 1026 | 9.4 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.93 | 33.25 | 6.39 | 0.14 | — | 26.89 | 8.40 |
| 10 | 15.45 | 33.25 | 6.13 | 0.14 | — | 12.36 | 8.40 |
| 17 | 16.05 | 33.26 | — | — | — | — | 8.45 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 17 | 16 | 0955 | 29 | 9 | 4 | N 3 | N 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 4 | 1026 | 8.2 | | Ci | 1 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.31 | 33.57 | 5.88 | 0.10 | — | 13.81 | 8.30 |
| 10 | 17.17 | 33.56 | 5.79 | 0.14 | — | 10.91 | 8.41 |
| 27 | 17.23 | 33.56 | 5.79 | 0.18 | — | 12.36 | 8.40 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 18 | 16 | 0810 | 34 | 9 | 5 | SW 3 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 3 | 1023 | 8.0 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.15 | 33.56 | 5.67 | 0.07 | — | 12.36 | 8.30 |
| 10 | 17.14 | 33.56 | 5.98 | 0.03 | — | 14.54 | 8.32 |
| 20 | 17.31 | 33.56 | 5.84 | 0.14 | — | 10.91 | 8.33 |
| 30 | 17.90 | 33.56 | 5.92 | 0.10 | — | 22.54 | 8.30 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 19 | 16 | 0700 | 54 | 9 | 5 | S 2 | S 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 2 | 1023 | 8.1 | | Cc | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.93 | 33.57 | 5.68 | 0.10 | — | 16.72 | 8.27 |
| 10 | 16.92 | 33.56 | 5.57 | 0.18 | — | 26.89 | 8.30 |
| 20 | 16.89 | 33.75 | 5.57 | 0.17 | — | 12.36 | 8.35 |
| 30 | 16.85 | 33.54 | 5.48 | 0.14 | — | 11.63 | 8.30 |
| 50 | 15.00 | 33.63 | 4.54 | 0.31 | — | 33.44 | 8.15 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 20 | 16 | 0610 | 50 | 9 | 4 | NE 2 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1023 | 8.2 | | Ci | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.68 | 33.52 | 6.17 | 0.03 | 0 | 26.89 | 8.32 |
| 10 | 16.77 | 33.51 | 6.31 | 0.07 | 0 | 42.89 | 8.28 |
| 20 | 16.74 | 33.51 | 5.94 | 0.15 | 0 | 30.53 | 8.30 |
| 30 | 16.64 | 33.50 | 5.94 | 0.28 | — | 14.54 | 8.32 |
| 47 | 15.86 | 33.53 | 4.95 | 0.08 | — | 18.18 | 8.28 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 21 | 16 | 0450 | 60 | | | NE 3 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1023 | 7.2 | | | | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.75 | 33.58 | 5.96 | 0.07 | 0 | 12.36 | 8.35 |
| 10 | 16.76 | 33.60 | 5.88 | 0.10 | 0 | 10.91 | 8.30 |
| 20 | 16.78 | 33.67 | 5.44 | 0.14 | 0 | 37.08 | 8.35 |
| 30 | 16.71 | 33.67 | 5.48 | 0.08 | 0 | 16.72 | 8.35 |
| 55 | 15.44 | 33.69 | 5.28 | 0.04 | 0 | 23.99 | 8.20 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 22 | 16 | 0350 | 60 | | | NE 2 | NE 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1023 | 7.9 | | | | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.74 | 33.63 | 6.19 | 0.10 | 0 | 18.90 | 8.25 |
| 10 | 16.77 | 33.60 | 5.88 | 0 | 0 | 15.27 | 8.25 |
| 20 | 16.74 | 33.59 | 5.98 | 0.17 | 0 | 18.18 | 8.27 |
| 30 | 16.78 | 33.61 | 6.00 | 0.24 | 0 | 8.72 | 8.25 |
| 55 | 15.44 | 33.90 | 4.64 | 0.56 | 0 | 47.98 | 8.22 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 23 | 16 | 0220 | 86 | | | NE 2 | NE 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1023 | 8.2 | | | | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.90 | 33.22 | 5.88 | 0.14 | 0 | 13.09 | 8.35 |
| 10 | 16.90 | 33.26 | 5.88 | 0.10 | 0 | 8.72 | 8.40 |
| 20 | 16.94 | 33.20 | 6.10 | 0.14 | 0 | 18.18 | 8.35 |
| 30 | 16.83 | 33.39 | 6.08 | 0.07 | 0 | 23.26 | 8.33 |
| 50 | 16.51 | 33.75 | 4.95 | 0.21 | 0 | 32.72 | 8.27 |
| 83 | 15.10 | 34.13 | 4.33 | 0.28 | 0 | 39.99 | 8.15 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 24 | 15 | 1820 | 82 | | | N 2 | N 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 3 | 1023 | 10.2 | | | | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.10 | 33.39 | — | 0.49 | 0 | 18.18 | 8.25 |
| 10 | 17.64 | 33.40 | 5.90 | 0 | 0 | 12.36 | 8.20 |
| 20 | 17.17 | 33.35 | 5.67 | 0.03 | 0 | 8.72 | 8.25 |
| 30 | 17.15 | 33.37 | 5.79 | 0.28 | 0 | 14.54 | 8.07 |
| 50 | 15.95 | 34.00 | 4.21 | — | 0 | 34.90 | 7.86 |
| 80 | 15.62 | 34.28 | 4.02 | 0.25 | 0 | 23.99 | 8.25 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| C 25 | 15 | 1740 | 60 | | | NE 1 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1023 | 11.3 | | | | B |

OBSERVED

| Z<br>*m* | T<br>℃ | S<br>‰ | $O_2$<br>% | $PO_4$-P<br>μg-at/L | $NO_2$-$N_3$<br>μg-at/L | $SiO_2$-Si<br>μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.65 | 33.45 | 5.86 | 0.04 | 0 | 12.36 | 8.03 |
| 10 | 16.74 | 33.44 | 6.10 | 0.07 | 0 | 18.18 | 8.12 |
| 20 | 16.30 | 33.60 | 5.55 | 0.01 | 0 | 20.36 | 8.12 |
| 30 | 16.18 | 33.66 | 5.73 | 0.14 | 0 | 12.36 | 8.08 |
| 57 | 15.65 | 34.23 | 5.92 | 0.18 | 0 | 31.26 | 8.10 |

| Month | | 12월(백 두 산) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | C 1 | C 2 | C3 | C4 | C5 | C6 | C 7 | C8 | C9 | C 10 | C 11 |
| Day | | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| Item | Time / Z(m) | 1105 | 1225 | 1310 | 1400 | 1450 | 1530 | 1553 | 1625 | 1940 | 2156 | 2315 |
| T ℃ | 0 | 13.34 | 12.22 | 13.74 | 10.97 | 10.06 | 10.06 | 9.73 | 10.09 | 9.57 | 8.99 | 10.18 |
| | 10 | 13.08 | 12.20 | 13.89 | 10.50 | 9.99 | 9.72 | 9.72 | 9.76 | — | — | — |
| | 20 | 12.98 | 12.17 | 13.72 | — | — | — | — | — | — | — | — |
| | Botm | 12.95 | 12.18 | 13.34 | 10.25 | 9.96 | 9.70 | 9.71 | 9.59 | 9.81 | 8.99 | 10.20 |
| S ‰ | 0 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | Botm | | | | | | | | | | | |
| Depth(m) | | 32 | 30 | 30 | 16 | 22 | 15 | 21 | 21 | 12 | 16 | 16 |
| Water Trans(m) | | 5 | 3 | 6 | 6 | 7 | 14 | 16 | 16 | — | — | — |
| Water Color | | 7 | 9 | 8 | 8 | 9 | 4 | 4 | 4 | — | — | — |
| Wave | | NNW 2 | NNW 2 | NNW 2 | NNW 1 | 0 | S 1 | SW 1 | SSW 1 | SW 1 | W 2 | W 1 |
| Swell | | NNW 1 | NNW 1 | NNW 1 | NNW 0 | 0 | 0 | SW 1 | SWS 1 | 0 | W 1 | W 1 |
| Air Temp(°C) | | 11.7 | 9.8 | 11.2 | 11.3 | 12.6 | 12.7 | 11.4 | 10.4 | 8.2 | 7.6 | 7.8 |
| Baro. (mb) | | 1016.6 | 1015.8 | 1015.1 | 1014.7 | 1014.4 | 1014.2 | 1014.2 | 1014.3 | 1014.9 | 1015.9 | 1015.3 |
| Wind | | NNW 2 | NNW 2 | NNW 2 | NNW 1 | 0 | S 1 | SW 1 | SWS 1 | SW 1 | W 2 | W 1 |
| Cloud | | SC 2 | SC 3 | SC 4 | SC 3 | SC 3 | SC 3 | SC 1 | SC 2 | — | — | — |
| Weather | | B | BC | BC | BC | BC | BC | B | B | — | — | — |

| Month | | 12월 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 0912 | C 13 | C 14 | C 15 | C 16 | C 17 | C 18 | C 19 | C 20 | C 21 |
| Day | | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 28 | 28 | 28 |
| Item | Time / Z(m) | 0925 | 0950 | 1025 | 1115 | 1643 | 1840 | 1953 | 0955 | 1042 | 1220 |
| T ℃ | 0 | 8.83 | 8.70 | 7.47 | 8.84 | 9.55 | 10.63 | 10.15 | 10.64 | 10.77 | 11.17 |
| | 10 | 8.72 | — | 7.49 | 9.25 | 9.64 | 10.70 | 11.24 | 10.59 | 10.77 | 11.23 |
| | 20 | — | — | — | 9.61 | — | — | — | 10.67 | 10.73 | 11.21 |
| | 30 | — | — | — | — | — | — | — | 10.63 | 10.80 | 11.27 |
| | Botm | 8.64 | 8.68 | 7.50 | 9.37 | 9.71 | 10.70 | 11.23 | 10.70 | 10.86 | 11.23 |
| S ‰ | 0 | | | | | | | | | | |
| | 10 | | | | | | | | | | |
| | 20 | | | | | | | | | | |
| | 30 | | | | | | | | | | |
| | Botm | | | | | | | | | | |
| Depth(m) | | 20 | 12 | 19 | 32 | 19 | 23 | 29 | 48 | 52 | — |
| Water Trans. (m) | | 4 | 4 | 4 | 4 | — | — | — | — | - | |
| Water Color | | 8 | 9 | 8 | 7 | 4 | — | — | — | — | - |
| Wave | | W 2 | W 2 | W 2 | SWW 1 | NWW 2 | NWW 2 | NWW 2 | W 4 | W 4 | NW 4 |
| Swell | | W 1 | W 1 | W 1 | SWW 1 | NWW 2 | NWW 1 | NWW 1 | W 2 | W 2 | NW 2 |
| Air Temp(°C) | | 1.2 | 1.4 | 0.7 | 2.0 | 2.2 | 1.7 | 1.6 | 0 | 0.4 | 1.4 |
| Baro. (mb) | | 1019.8 | 1019.8 | 1020.0 | 1019.3 | 1019.8 | 1020.7 | 1020.9 | 1018.4 | 1018.3 | 1017.4 |
| Wind | | W 2 | W 2 | W 2 | SWW 1 | NWW 2 | NWW 2 | NWW 2 | W 18 | W 20 | NW 17 |
| Cloud | | AC 2 | AC 3 | AC 3 | AC 8 | AC 3 | AC 5 | AC 1 | SC 4 | SC 7 | AS 10 |
| Weather | | B | BC | BC | C | BC | BC | B | BC | BC | Snow |

# 제 5 편

# 부유생물 조사 성적

PART 5

PLANKTON DATA

1967

# 차 례

부유생물의 채집 및 조사방법 ..... 531
동해 부유생물 조사성적 ..... 533
A. 106선 부유생물 조사표 ..... 535
B. 105선 부유생물 조사표 ..... 537
C. 104선 부유생물 조사표 ..... 539
D. 103선 부유생물 조사표 ..... 541
E. 102선 부유생물 조사표 ..... 543
남해 부유생물 조사성적 ..... 545
A. 209선 부유생물 조사표 ..... 547
B. 208선 부유생물 조사표 ..... 549
C. 207선 부유생물 조사표 ..... 551
D. 206선 부유생물 조사표 ..... 553
E. 205선 부유생물 조사표 ..... 555
F. 204선 부유생물 조사표 ..... 559
G. 203선 부유생물 조사표 ..... 562
H. 313선 부유생물 조사표 ..... 564
I. 314선 부유생물 조사표 ..... 567
J. 315선 부유생물 조사표 ..... 568
서해 부유생물 조사성적 ..... 571
A. 312선 부유생물 조사표 ..... 573
B. 311선 부유생물 조사표 ..... 575
C. 310선 부유생물 조사표 ..... 577
D. 309선 부유생물 조사표 ..... 580
E. 308선 부유생물 조사표 ..... 583
F. 307선 부유생물 조사표 ..... 587
G. 306선 부유생물 조사표 ..... 589

# CONTENTS

Plankton Collection and Procedures ..... 532
Plankton Data, Eastern Waters ..... 533
A. Plankton Data, Line 106 ..... 535
B. Plankton Data, Line 105 ..... 537
C. Plankton Data, Line 104 ..... 539
D. Plankton Data, Line 103 ..... 541
E. Plankton Data, Line 102 ..... 543
Plankton Data, Southern Waters ..... 545
A. Plankton Data, Line 209 ..... 547
B. Plankton Data, Line 208 ..... 549
C. Plankton Data, Line 207 ..... 551
D. Plankton Data, Line 206 ..... 553
E. Plankton Data, Line 205 ..... 555
F. Plankton Data, Line 204 ..... 559
G. Plankton Data, Line 203 ..... 562
H. Plankton Data, Line 313 ..... 564
I. Plankton Data, Line 314 ..... 567
J. Plankton Data, Line 315 ..... 568
Plankton Data, Western Waters ..... 571
A. Plankton Data, Line 312 ..... 573
B. Plankton Data, Line 311 ..... 575
C. Plankton Data, Line 310 ..... 577
D. Plankton Data, Line 309 ..... 580
E. Plankton Data, Line 308 ..... 583
F. Plankton Data, Line 307 ..... 587
G. Plankton Data, Line 306 ..... 589

# 浮游生物의 採集 및 調査方法

浮游生物의 採集은 本院 및 海區試驗船에 의 韓國近海의 既定된 海洋觀測點에 따라 一般海洋觀測과 同時에 採集하였으며 그 結果는 다음 表와 같다.

## 1. 採集網 및 方法

採集網은 Norpac Net를 使用하여 定量調査하였으며 採集水層은 水深이 깊은 東海側은 150 m에서 表面까지 水深이 얕은 西海 및 南海의 150 m 미만인 곳은 底層에서 表面까지 1 m/Sec의 速度로서 垂直 採集하여 約5%의 中性 홀마링으로 固定하였다.

## 2. 採集된 試料의 處理方法

上記와 같이 採集한 試料에 對해서 大型인 腔腸類 및 甲殼類를 除去하고 容積 測定法에 依한 沈澱量과 重量 測定法에 따른 濕重量을 測定하여 그 量을 表示하였다.

定量測定後 試料는 標本分割器로서 等分割하여 그 一部를 顯微鏡下에서 觀察하였으며 種類別 出現 및 詳細한 Plankton學的인 研究는 研究報告書에 記述키로 하고 여기서는 目 또는 屬別로 計數 表示하였다.

# Plankton Collections and Procedures

Plankton Samples Were collected at the hydrographic stations of the sectional lines made in the adjacent waters of Korea. The methods applied for collecting and treating the samples and the gears are as follows.

## 1. Method of collecting plankton;

Plankton samples were collected by the vertical haul with the Norpac net. General depth of haul is from an estimated depth of 150 or 50 meters to the surface, and the speed of hauling is approximately one meter per second. The samples obtained from the net were immediatly preserved in five percent neutral formalin in the preserving bottle of plankton and taken to the laboratory for examinations.

## 2. Laboratory procedures;

For quantitative examination of plankton, the settling volume and the wet weight measurements were in removing large planktons, such as Hydromedusae, Scyphomedusae and Doliolum. In separating the plankton, the subsamples were made by whirring apparatus, and counted by genus or order under the binocular and the microscope.

Remark: Some samples were measured in settling volumes and in biomass only

# 동 해 부 유 생 물 조 사 성 적

# PLANKTON DATA
# EASTERN WATERS

1 9 6 7

# 106선 부유생물조사표

## Plankton Data, Line 106

| Month | Mar | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Station | 02 | 03 | 04 | 05 | 07 | 09 | 11 | 13 |
| Date | 21 | 21 | 21 | 20 | 20 | 20 | 20 | 20 |
| Time | 0310 | 0205 | 0055 | 2250 | 1910 | 1530 | 1125 | 0715 |
| Collected depth(m) | 40 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| Volume(cc) | 6.0 | 6.0 | 3.0 | 7.0 | 6.0 | 1.0 | 1.2 | 35.0 |
| Biomass(mg/m³) | 90.4 | 61.9 | 29.4 | 87.6 | 63.9 | 8.6 | 11.6 | 272.3 |
| Rate of Subsamole | 1/2 | 1/8 | 1/8 | 1/16 | 1/16 | 1/8 | 1/8 | 1/64 |
| No. of total organisms | 167 | 589 | 490 | 710 | 558 | 346 | 418 | 515 |
| No. of total the other organisms | — | — | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | | | |
| Calanus | 45 | 76 | 65 | 67 | 57 | 21 | 47 | 56 |
| Undinula | | 1 | | | 1 | | | |
| Eucalanus | | 7 | 10 | 5 | 2 | 4 | 1 | 1 |
| Paracalanus | 52 | 276 | 202 | 305 | 269 | 143 | 219 | 156 |
| Acrocalanus | | 3 | | | | | | |
| Clausocalanus | | 20 | 26 | 54 | 18 | 28 | 21 | 42 |
| Ctenocalanus | | 2 | | | | 39 | | |
| Pseudocalanus | 2 | 31 | 29 | 33 | 89 | 71 | 47 | 151 |
| Nannocalanus | | | 5 | | | | | |
| Aetideus | | 1 | | | | | | |
| Euchaeta | | 3 | 2 | 9 | 2 | | 3 | 3 |
| Scolecithricella | | 10 | 5 | 7 | 10 | | 1 | 3 |
| Centropages | 1 | 10 | 16 | 59 | 19 | | 14 | 22 |
| Metridia | 30 | 90 | 52 | 58 | 6 | 17 | 8 | 46 |
| Lucicutia | | | 1 | | 1 | | 1 | |
| Candacia | | 1 | | 1 | | | | |
| Oithona | 3 | 13 | 16 | 22 | 5 | 3 | 3 | 3 |
| Oncaea | 9 | 3 | 5 | 2 | 1 | 1 | 1 | 1 |
| Corycaeus | 20 | 8 | 9 | 14 | 2 | 1 | 8 | 1 |
| Copepoda larva | 5 | 4 | 10 | | | | | |
| Oikopleura | | 3 | 7 | 11 | 13 | 2 | 3 | |
| Conchoecia | | 7 | 11 | 27 | 16 | 1 | | 2 |
| Polychaeta | | 1 | | | | | | 1 |
| Fish larva | | | 1 | | | | | |
| Fish egg | | | | | | | 1 | |
| Pelagic egg | | | 3 | | 10 | | 6 | |
| Brachyura larva | | | | 1 | | | | |
| Amphipoda | | 5 | 2 | 9 | 7 | 3 | 6 | 6 |
| Euphausia | | 7 | 7 | 17 | 17 | 1 | 15 | 4 |
| Muggiaea | | 1 | | | 2 | | 2 | |
| Fritillaria | | 1 | | | | | | |
| Aglaura | | 2 | | | 1 | | 5 | |
| Pteropoda | | 1 | 2 | | 1 | 5 | | 8 |
| Sagitta | | 1 | 2 | 5 | 3 | 3 | 1 | 7 |
| Coelenterata | | 1 | 2 | | 1 | 1 | 2 | 1 |
| Heteropoda | | | | 4 | | 1 | 2 | 1 |
| Brachionus | | | | | 4 | 1 | | |
| Cirripedia | | | | | 1 | | 1 | |

| April | | | | June | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 02 | 03 | 05 | 08 | 02 | 03 | 04 | 05 | 06 | 07 |
| 21 | 21 | 21 | 21 | 24 | 23 | 23 | 23 | 23 | 23 |
| 1750 | 1800 | 1130 | 1735 | 0115 | 2200 | 1140 | 1700 | 1435 | 1200 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 2.5 | 1.0 | 0.6 | 2.3 | 9.0 | 0.8 | 5.0 | 2.2 | 1.2 | 4.0 |
| 27.7 | 2.5 | 6.3 | 45.9 | 128.1 | 10.3 | 50.8 | 30.7 | 12.2 | 43.8 |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

| August | | | | | | |
|---|---|---|---|---|---|---|
| 03 | 04 | 05 | 07 | 09 | 11 | 13 |
| 25 | 25 | 25 | 25 | 24 | 24 | 24 |
| 1410 | 1205 | 0920 | 0435 | 2345 | 1915 | 1505 |
| 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| 4.5 | 5.0 | 9.0 | 8.0 | 2.0 | 4.0 | 0.7 |
| 52.8 | 83.0 | 78.8 | 58.7 | 36.9 | 24.1 | 3.9 |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |

# 105선 부유생물조사표

## Plankton Data, Line 105

| Month | Mar | | | | | | |
|---|---|---|---|---|---|---|---|
| Station | 03 | 04 | 05 | 07 | 09 | 11 | 13 |
| Date | 19 | 19 | 19 | 19 | 19 | 20 | 20 |
| Time | 1040 | 1125 | 0205 | 1600 | 2040 | 0030 | 0455 |
| Collected depth(m) | 45 | 150 | 150 | 150 | 150 | 150 | 150 |
| Volume(cc) | 2.0 | 2.6 | 3.0 | 0.3 | 22.0 | 8.0 | 9.0 |
| Biomass(mg/m$^3$) | 74.3 | 39.4 | 35.9 | 2.1 | 164.6 | 71.2 | 68.5 |
| Rate of subsample | 1/16 | 1/16 | 1/16 | 1/2 | 1/32 | 1/16 | 1/32 |
| No. of total organisms | 269 | 410 | 727 | 371 | 776 | 521 | 345 |
| No. of total the other organisms | — | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | | |
| Calanus | 42 | 54 | 77 | 65 | 47 | 54 | 32 |
| Eucalanus | 2 | 7 | 4 | 3 | 3 | 9 | 3 |
| Paracalanus | 148 | 240 | 334 | 193 | 282 | 230 | 64 |
| Acrocalanus | | | | 1 | | | |
| Clausocalanus | 4 | 14 | 61 | 12 | 35 | 39 | 22 |
| Pseudocalanus | 19 | 19 | 38 | 18 | 50 | 47 | 71 |
| Nannocalanus | | | 1 | | | | |
| Euchaeta | 1 | | 1 | 1 | 5 | 4 | 5 |
| Scolecithricella | 1 | 3 | 2 | | 11 | | 6 |
| Scolecithrix | | | 1 | 2 | | | |
| Centropages | 2 | 5 | 5 | 7 | 11 | 28 | 12 |
| Metridia | 11 | 24 | 2 | 6 | 155 | 67 | 96 |
| Candacia | 2 | 1 | | 3 | | | |
| Pleuromamma | | | | 5 | | | |
| Oithona | 1 | 6 | 123 | 3 | 32 | 11 | 8 |
| Pontellopsis | | | | | 1 | | |
| Acartia | | 1 | 3 | 2 | | | |
| Oncaea | 1 | 3 | 3 | | 19 | 3 | 3 |
| Clytemnestra | | | | | 1 | | |
| Corycaeus | 8 | 6 | 6 | 7 | 17 | 5 | 2 |
| Copepoda larva | | | 26 | 3 | 4 | | |
| Oikopleura | 4 | 1 | 9 | 2 | 15 | 2 | |
| Conchoecia | 1 | 1 | 1 | 2 | 3 | 3 | 7 |
| Polychaeta | | | | | 3 | | |
| Fish egg | 1 | 2 | 1 | | | | 2 |
| Pelagic egg | | | 8 | 2 | 1 | 3 | 2 |
| Shell larva | | | | | 6 | | |
| Amphipoda | 3 | 6 | 1 | 2 | 9 | 5 | 1 |
| Euphausia | 14 | 8 | 10 | 7 | 41 | 1 | 4 |
| Muggiaea | | 4 | | 3 | 3 | | |
| Fritillaria | | 2 | | | 1 | | |
| Cypridina | | | | 1 | | 2 | |
| Aglaura | | | | 11 | | | |
| Brachyura | | | | | 1 | | |
| Pteropoda | 2 | | 6 | 1 | 13 | 4 | 4 |
| Sagitta | 1 | 1 | 2 | 2 | 5 | 4 | 1 |
| Coelenterata | 1 | 2 | 2 | 7 | 2 | | |

| April | | | | June | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 03 | 05 | 08 | 09 | 03 | 04 | 06 | 07 | 08 | 09 |
| 23 | 23 | 24 | 24 | 24 | 24 | 6 | 24 | 24 | 24 |
| 0900 | 1140 | 1800 | 2040 | 0500 | 0600 | 1330 | 1335 | 1600 | 1840 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 1.5 | 2.2 | 0.8 | 0.5 | 1.5 | 3.5 | 0.5 | 1.5 | 2.0 | 0.5 |
| 30.2 | 60.4 | 8.4 | 9.4 | 27.7 | 37.5 | 17.1 | 13.7 | 17.1 | 6.7 |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

| August | | | | | |
|---|---|---|---|---|---|
| 03 | 05 | 07 | 09 | 11 | 13 |
| 22 | 22 | 22 | 23 | 24 | 24 |
| 1635 | 1735 | 2150 | 0200 | 0750 | 1210 |
| 150 | 150 | 150 | 150 | 150 | 150 |
| 4.0 | 10.0 | 13.0 | 10.0 | 2.0 | 5.0 |
| 20.4 | 53.0 | 72.7 | 61.1 | 10.5 | 55.3 |
| — | — | — | — | — | — |
| — | — | — | — | — | — |
| — | — | — | — | — | — |
| — | — | — | — | — | — |

# 104선 부유생물조사표

## Plankton Data, Line 104

| Month | Mar | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Station | 04 | 05 | 07 | 09 | 11 | 13 | 15 | 17 | 19 | 21 |
| Date | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 16 | 16 | 15 |
| Time | 0815 | 0610 | 0300 | 2235 | 1900 | 1420 | 1020 | 0530 | 0150 | 2155 |
| Collected depth(m) | 100 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| Volume(cc) | 6.0 | 1.5 | 0.3 | 10.0 | 6.0 | 3.0 | 12.0 | 1.0 | 6.0 | 10.0 |
| Biomass(mg/m$^3$) | 80.6 | 17.2 | 2.8 | 99.4 | 25.0 | 26.3 | 81.6 | 12.6 | 63.7 | 83.0 |
| Rate of subsample | 1/8 | 1/4 | 1 | 1/8 | 1/8 | 1/8 | 1/32 | 1/8 | 1/16 | 1/16 |
| No. of total organisms | 504 | 417 | 259 | 537 | 697 | 407 | 853 | 388 | 593 | 701 |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | | | | | |
| Calanus | 67 | 57 | 45 | 44 | 87 | 11 | 83 | 45 | 60 | 44 |
| Eucalanus | | | 2 | 1 | 8 | 1 | 12 | 2 | 8 | 4 |
| Rhincalanus | | | | | | 3 | | | | |
| Paracalanus | 199 | 209 | 73 | 285 | 330 | 2 | 285 | 149 | 215 | 309 |
| Clausocalanus | 17 | 31 | 24 | 26 | 79 | 11 | 76 | 59 | 49 | 11 |
| Aetideus | 1 | | | | | | | | | |
| Gaetanus | | | | | | | 1 | | | |
| Ctenocalanus | | | | | | 1 | | | | |
| Pseudocalanus | 38 | 18 | 40 | 36 | 96 | 21 | 280 | 47 | 135 | 126 |
| Euchaeta | 1 | | | 12 | | 9 | | | 4 | 6 |
| Scolecithricella | 2 | | | 3 | 2 | 2 | 7 | 1 | | 6 |
| Scolecithrix | | | | | | | | 1 | | |
| Centropages | 19 | 4 | 3 | 10 | 12 | 2 | 4 | 2 | 13 | 37 |
| Mecynocera | | | | | 2 | | | | | |
| Lucicutia | | | | | | | 1 | | | |
| Metridia | 96 | 67 | 38 | 79 | 8 | 173 | 14 | 18 | 57 | 59 |
| Pleuromamma | | | 2 | | | | | | | |
| Candacia | 5 | | | | | | | 1 | 1 | |
| Oithona | 10 | 11 | 5 | 13 | 59 | 2 | 23 | 29 | 6 | 34 |
| Oncaea | 1 | 5 | 1 | 1 | | | 2 | 4 | 1 | |
| Corycaeus | 19 | 6 | 2 | | 1 | 2 | 11 | 8 | 3 | 5 |
| Copepoda larva | | | 2 | | | | 3 | 3 | | 1 |
| Oikopleura | 1 | 2 | 1 | 1 | 1 | | 1 | 8 | 5 | 4 |
| Conchoecia | 3 | 4 | 2 | 6 | 1 | 151 | 3 | 2 | 16 | 27 |
| Fish egg | 1 | | | 1 | 1 | | | | | |
| Pelagic egg | | | | | | | 9 | 2 | 13 | 3 |
| Shell larva | | | | | | | | | | 4 |
| Amphipoda | 6 | 1 | 13 | 4 | | 4 | 16 | 2 | | 1 |
| Muggiaea | 2 | | | | | 3 | | | | |
| Aglaura | 3 | | | | | | | | | |
| Brachyura | 1 | | 1 | | | | | | | |
| Pteropoda | 1 | 1 | | 9 | 3 | | 10 | 3 | 2 | 13 |
| Sagitta | 3 | 1 | 5 | 6 | 3 | 1 | 8 | 1 | 2 | 1 |
| Coelenterata | 8 | | | | 4 | 7 | | 7 | | 3 |
| Cirripedia | | | | | | 1 | | | 1 | 2 |
| Heteropoda | | | | | | | 2 | | 2 | 1 |
| Megalopa | | | | | | | 2 | | | |

| April | | | | June | | | | |
|---|---|---|---|---|---|---|---|---|
| 05 | 06 | 07 | 09 | 05 | 06 | 07 | 08 | 09 |
| 25 | 25 | 25 | 25 | 25 | 24 | 25 | 25 | 24 |
| 1345 | 1200 | 1000 | 0520 | 1010 | 0800 | 0525 | 1245 | 2400 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 2.0 | 0.8 | 1.5 | 0.8 | 0.5 | 0.5 | 3.0 | 4.5 | 0.5 |
| 10.1 | 13.8 | 22.0 | 22.0 | 18.2 | 15.4 | 37.6 | 57.9 | 11.1 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

| August | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 05 | 07 | 09 | 11 | 13 | 15 | 17 | 19 | 21 |
| 21 | 21 | 21 | 21 | 19 | 19 | 19 | 20 | 20 |
| 1157 | 0835 | 0423 | 0045 | 1540 | 1945 | 2345 | 0345 | 0817 |
| 150 | 150 | 150 | 150 | 150 | 150 | 230 | 150 | 150 |
| 5.0 | 5.0 | 8.5 | 2.7 | 4.0 | 2.0 | 4.0 | 6.0 | 3.5 |
| 28.7 | 34.9 | 44.7 | 19.9 | — | — | — | 48.8 | 28.2 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

# 103선 부유생물조사표

## Plankton Data, Line 103

| Month | Mar | | | | | |
|---|---|---|---|---|---|---|
| Station | 04 | 05 | 07 | 09 | 11 | 13 |
| Date | 14 | 14 | 14 | 15 | 15 | 15 |
| Time | 1810 | 1900 | 2110 | 0200 | 0600 | 0940 |
| Collected depth(m) | 90 | 150 | 150 | 80 | 150 | 150 |
| Volume(cc) | 1.0 | 2.0 | 8.0 | 4.0 | 5.0 | 1.0 |
| Biomass(mg/m³) | 15.7 | 13.4 | 91.2 | 44.4 | 50.6 | 9.4 |
| Rate of subsample | 1/8 | 1/4 | 1/16 | 1/32 | 1/32 | 1/4 |
| No. of total organisms | 421 | 514 | 561 | 991 | 317 | 513 |
| No. of total the other organisms | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | |
| Calanus | 85 | 83 | 91 | 57 | 58 | 92 |
| Eucalanus | | | | | 13 | 17 |
| Paracalanus | 182 | 275 | 142 | 300 | 86 | 181 |
| Acrocalanus | | | | | | 1 |
| Clausocalanus | 7 | 12 | 43 | 46 | 33 | 52 |
| Ctenocalanus | | 2 | | | 1 | |
| Aetideus | | 4 | 1 | | | |
| Pseudocalanus | 15 | 31 | 67 | 14 | 44 | 64 |
| Euchaeta | 6 | 6 | 4 | 2 | 3 | 1 |
| Scolecithricella | | | 2 | 1 | 1 | |
| Scolecithrix | | | 2 | | | |
| Centropages | 1 | 4 | 12 | 4 | 6 | 4 |
| Metridia | 12 | 10 | 24 | 27 | 41 | 27 |
| Lucicutia | | 1 | 2 | | 2 | |
| Candacia | 4 | | | | | 1 |
| Pleuromamma | | 2 | 5 | | | 13 |
| Acartia | 1 | | | | | |
| Oithona | 7 | 4 | 3 | 215 | 4 | 6 |
| Setella | | | | 8 | | |
| Oncaea | 8 | 2 | 5 | 57 | 2 | |
| Corycaeus | 13 | 27 | 26 | 28 | 6 | 14 |
| Copepoda larva | 4 | 12 | 6 | 106 | | 6 |
| Oikopleura | | 1 | 34 | 54 | 9 | 3 |
| Conchoecia | | 4 | 7 | | | 2 |
| Polychaeta | | 1 | | | | |
| Fish larva | | | 1 | | | |
| Fish egg | | | 1 | | | |
| Pelagic egg | | 1 | 7 | 11 | | 3 |
| Amphipoda | 2 | 2 | 2 | | | |
| Euphausia | 59 | 19 | 35 | 30 | 2 | 9 |
| Muggiaea | | 2 | 7 | 7 | | |
| Brachyura | | | 2 | | | |
| Diphyes | | | 2 | | | |
| Aglaura | | 4 | 14 | 7 | | |
| Pteropoda | 4 | 3 | | 2 | 2 | 2 |
| Cypridina | | | | | | 1 |
| Sagitta | | 2 | 2 | 4 | 3 | 13 |
| Coelenterata | 4 | | 6 | 11 | | 1 |
| Cirripedia | | | 1 | | 1 | |
| Asterina | | | 1 | | | |
| Mallomonas | | | 4 | | | |

| April | | | | | | | June | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 04 | 05 | 06 | 07 | 08 | 09 | 10 | 04 | 05 | 06 | 07 |
| 26 | 26 | 26 | 27 | 26 | 26 | 26 | 26 | 26 | 10 | 26 |
| 0835 | 0930 | 1110 | 1250 | 1440 | 1655 | 1925 | 0515 | 0915 | 1115 | 1200 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 1.0 | 0.2 | 1.1 | 3.0 | 0.7 | 1.7 | 1.2 | 0.5 | 2.5 | 6.0 | 1.5 |
| 20.1 | 2.5 | 37.7 | 19.5 | 15.1 | 25.2 | 18.9 | 9.1 | 30.2 | 51.5 | 28.6 |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — |

| August | | | | |
|---|---|---|---|---|
| 04 | 07 | 09 | 11 | 13 |
| 18 | 18 | 19 | 19 | 19 |
| 1845 | 2035 | 0015 | 0740 | 1215 |
| 150 | 150 | 150 | 150 | 150 |
| 1.2 | 1.0 | 16.0 | 11.0 | 3.0 |
| 4.7 | 3.7 | 98.5 | 212.3 | 23.6 |

# 102선 부유생물조사표

## Plankton Data, Line 102

| Month | Mar | | | | | |
|---|---|---|---|---|---|---|
| Station | 04 | 05 | 07 | 09 | 11 | 13 |
| Date | 12 | 12 | 12 | 12 | 12 | 12 |
| Time | 2105 | 2115 | 1820 | 1826 | 0945 | 0540 |
| Collected depth(m) | 45 | 77 | 120 | 130 | 150 | 150 |
| Volume(cc) | 0.2 | 2.5 | 10.0 | 7.0 | 12.0 | 7.0 |
| Biomass(mg/m³) | 89.6 | 30.6 | 36.8 | 67.0 | 139.5 | 46.8 |
| Rate of subsample | 1 | 1/8 | 1/16 | 1/32 | 1/64 | 1/8 |
| No. of total organisms | 187 | 632 | 612 | 715 | 767 | 633 |
| No. of total the other organisms | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | |
| Calanus | 22 | 132 | 108 | 100 | 88 | 171 |
| Eucalanus | | 5 | | 14 | | 5 |
| Paracalanus | 102 | 154 | 110 | 243 | 199 | 126 |
| Clausocalanus | 4 | 32 | 25 | 62 | 154 | 26 |
| Pseudocalanus | | 46 | 38 | 229 | 251 | 28 |
| Nannocalanus | | | | | | 1 |
| Aetideus | | 2 | | | | |
| Euchaeta | 6 | 7 | 1 | | | 7 |
| Scolecithricella | 2 | | | 4 | 2 | 1 |
| Scolecithrix | | | 2 | | | |
| Centropages | 1 | | 3 | 16 | 10 | 4 |
| Temora | | | 1 | | | |
| Metridia | 2 | 3 | 1 | 13 | 9 | 28 |
| Lucicutia | | | 1 | | | 2 |
| Candacia | | 1 | | | | 3 |
| Acartia | | 1 | | | | 1 |
| Pleuromamma | | 2 | | | | 2 |
| Oithona | 8 | 8 | 8 | 11 | 16 | 10 |
| Setella | 4 | | | | | |
| Oncaea | | 8 | 5 | | 2 | 8 |
| Corycaeus | 2 | 21 | 12 | 3 | 4 | 26 |
| Copepoda larva | | | 1 | | | 13 |
| Oikopleura | 2 | 6 | 24 | 7 | 18 | 2 |
| Conchoecia | 1 | 5 | 5 | | | 5 |
| Polychaeta | | | | | | 2 |
| Fish larva | | | | | | 1 |
| Fish egg | | 1 | 3 | | | 1 |
| Pelagic egg | | 7 | 3 | | 3 | 1 |
| Fish scale | | 1 | | | | |
| Amphipoda | 2 | 3 | 1 | 2 | 2 | 1 |
| Euphausia | 21 | 157 | 132 | 5 | | 102 |
| Muggiaea | 2 | 2 | 2 | | | 12 |
| Fritillaria | | | 3 | | | 1 |
| Aglaura | | 6 | 1 | | | 1 |
| Pteropoda | 1 | 3 | 2 | | 3 | 12 |
| Sagitta | 3 | 3 | 4 | 4 | 4 | 7 |
| Salpa | | 1 | 6 | | | 1 |
| Coelenterata | 2 | 14 | 7 | | 2 | 22 |
| Syphonautes | | 1 | | | | |
| Heteropoda | | | 2 | 2 | | |

| April | | | | June | | | |
|---|---|---|---|---|---|---|---|
| 04 | 07 | 08 | 09 | 05 | 06 | 07 | 08 |
| 27 | 27 | 27 | 27 | 27 | 27 | 27 | 11 |
| 0947 | 0530 | 0330 | 0050 | 1015 | 1215 | 1435 | 1600 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 9.0 | 0.2 | 1.2 | 0.3 | 1.5 | 2.0 | 0.5 | 2.0 |
| 53.5 | 3.8 | 13.2 | 11.9 | 33.5 | 24.7 | 9.7 | 30 2 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

| August | | | | |
|---|---|---|---|---|
| 05 | 07 | 09 | 11 | 13 |
| 17 | 16 | 16 | 16 | 16 |
| 0335 | 2355 | 1920 | 1510 | 1100 |
| 150 | 150 | 150 | 150 | 150 |
| 10.0 | — | 5.5 | 0.3 | 5.2 |
| 87.0 | — | 34.9 | 0.2 | 25.4 |
| — | — | — | — | — |
| — | — | — | — | — |
| — | — | — | — | — |

# 남 해 부 유 생 물 조 사 성 적

# PLANKTON DATA
# SOUTHERN WATERS

1 9 6 7

# 209선 부유생물조사표

## Plankton Data, Line 209

| Month | Mar | | | | April | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Station | 04 | 07 | 09 | 11 | 04 | 06 | 08 | 09 | 10 |
| Date | 11 | 11 | 11 | 11 | 24 | 24 | 25 | 25 | 25 |
| Time | 1130 | 1540 | 1950 | 2240 | 1655 | 1925 | 0430 | 0047 | 0350 |
| Collected depth(m) | 50 | 200 | 150 | 130 | 44 | 150 | 135 | 150 | 143 |
| Volume(cc) | 2.5 | 1.5 | 2.0 | 15.0 | 0.3 | 3.0 | 0.8 | 2.5 | 3.0 |
| Biomass($mg/m^3$) | 65.8 | 2.5 | 6.7 | 111.5 | 8.0 | 23.3 | 6.8 | 24.5 | 23.3 |
| Rate of subsample | 1/8 | 1/2 | 1/4 | 1/32 | — | — | — | — | — |
| No. of total organisms | 690 | 480 | 553 | 310 | — | — | — | — | — |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | | | | |
| Calanus | 143 | 92 | 104 | 28 | | | | | |
| Eucalanus | 1 | 1 | 4 | 2 | | | | | |
| Paracalanus | 248 | 137 | 111 | 136 | | | | | |
| Clausocalanus | 20 | 17 | 5 | 23 | | | | | |
| Pseudocalanus | 3 | 3 | 7 | | | | | | |
| Euchaeta | 7 | 5 | 7 | 2 | | | | | |
| Scolecithrix | 1 | 1 | | | | | | | |
| Centropages | 5 | 4 | 1 | | | | | | |
| Metridia | | | 2 | | | | | | |
| Lucicutia | 1 | | 4 | 2 | | | | | |
| Candacia | 1 | 1 | 8 | | | | | | |
| Acartia | | 1 | 1 | | | | | | |
| Pleuromamma | 3 | 2 | | | | | | | |
| Oithona | 11 | 7 | 18 | 9 | | | | | |
| Setella | | | 1 | | | | | | |
| Oncaea | 2 | 7 | 9 | 3 | | | | | |
| Corycaeus | 38 | 30 | 49 | 26 | | | | | |
| Copepoda larva | 22 | 17 | 24 | | | | | | |
| Oikopleura | 2 | | 3 | 5 | | | | | |
| Conchoecia | 6 | 6 | 9 | | | | | | |
| Polychaeta | 2 | 1 | | 1 | | | | | |
| Fish larva | | | 9 | | | | | | |
| Fish egg | 3 | | | 1 | | | | | |
| Pelegic egg | 6 | 16 | 2 | | | | | | |
| Euphausia | 115 | 100 | 118 | 14 | | | | | |
| Muggiaea | 12 | 8 | 1 | 18 | | | | | |
| Fritillaria | | | 1 | | | | | | |
| Aglaura | 11 | 4 | 4 | 15 | | | | | |
| Brachyura | | 1 | 2 | | | | | | |
| Pteropoda | 1 | | 1 | | | | | | |
| Sagitta | 1 | 5 | 17 | 4 | | | | | |
| Coelenterata | 24 | 5 | 31 | 12 | | | | | |
| Cirripedia | 1 | 1 | | 9 | | | | | |
| Bradyidius | | 1 | | | | | | | |

| June | | | | | August | | | |
|---|---|---|---|---|---|---|---|---|
| 04 | 05 | 07 | 09 | 11 | 05 | 07 | 09 | 13 |
| 23 | 23 | 23 | 23 | 23 | 15 | 15 | 15 | 16 |
| 0915 | 1030 | 1400 | 1810 | 2145 | 1012 | 1235 | 1635 | 1100 |
| 55 | 50 | 150 | 150 | 50 | 110 | 150 | 150 | 150 |
| 3.0 | 2.0 | 8.0 | 15.0 | 7.0 | 3.0 | 10.0 | 5.5 | 3.0 |
| 52.8 | 43.5 | 31.0 | 82.1 | 40.9 | 42.3 | 73.9 | 47.0 | 12.7 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

| October | | | November | | | | |
|---|---|---|---|---|---|---|---|
| 05 | 07 | 09 | 05 | 06 | 08 | 10 | 11 |
| 30 | 30 | 30 | 23 | 23 | 23 | 23 | 4 |
| 0920 | 1200 | 1540 | 1115 | 1240 | 1700 | 2035 | 1900 |
| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1.2 | 1.0 | 7.0 | 3.0 | 2.0 | 5.0 | 5.0 | 8.0 |
| 9.4 | 4.1 | 73.0 | 29.9 | 12.1 | 76.1 | 49.9 | 62.9 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

# 208선 부유생물조사표

## Plankton Data, Line 208

| Month | Mar | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Station | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| Date | 11 | 11 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Time | 0135 | 1240 | 2300 | 2125 | 1940 | 1830 | 1645 | 1530 | 1400 | 1255 |
| Collected depth(m) | 55 | 100 | 135 | 145 | 120 | 110 | 100 | 100 | 100 | 100 |
| Volume(cc) | 6.0 | 2.0 | 8.0 | 17.0 | 20.0 | 6.0 | 0.5 | 2.0 | 15.0 | 20.0 |
| Biomass(mg/m³) | 137.3 | 97.5 | 72.0 | 68.5 | 136.2 | 76.3 | 6.6 | 18.9 | 147.9 | 48.1 |
| Rate of subsample | 1/16 | 1/4 | 1/16 | 1/32 | 1/64 | 1/32 | 1/2 | 1/2 | 1/8 | 1/4 |
| No. of total organisms | 562 | 576 | 383 | 316 | 339 | 261 | 255 | 295 | 792 | 511 |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | | | | | |
| Calanus | 118 | 73 | 70 | 100 | 143 | 95 | 71 | 48 | 211 | 215 |
| Eucalanus | | | 1 | | 1 | 5 | 2 | 2 | 5 | 4 |
| Rhincalanus | | | | | | 1 | | 3 | 2 | 1 |
| Paracalanus | 217 | 167 | 58 | 34 | 57 | 27 | 44 | 91 | 167 | 45 |
| Clausocalanus | 6 | 2 | 12 | | 5 | 11 | 13 | 12 | 39 | 12 |
| Pseudocalanus | | | 3 | 2 | | 1 | | | 3 | 2 |
| Nannocalanus | | | | | | | | | 5 | |
| Euchaeta | 3 | 1 | 5 | 8 | 4 | 4 | 4 | 4 | 4 | 9 |
| Scolecithricella | | | | 2 | 2 | 2 | | 1 | | |
| Scolecithrix | | | 2 | | | | | | | |
| Centropages | 1 | 1 | | 1 | | | | | | |
| Metridia | | | | 1 | 1 | | | | | |
| Mecynocera | | 1 | | | | | | | | |
| Lucicutia | | | | 2 | 1 | 2 | 5 | 7 | 6 | 1 |
| Candacia | 2 | 2 | 7 | 5 | 3 | 2 | 2 | 5 | 3 | 5 |
| Pleuromamma | 1 | 1 | 2 | 1 | 5 | 7 | 4 | 9 | 5 | |
| Oithona | 18 | 29 | 8 | 1 | 4 | 3 | 9 | 26 | 20 | 6 |
| Setella | | | 2 | | | | | 1 | 1 | 1 |
| Acartia | | 1 | | | | | 2 | | | 1 |
| Oncaea | 3 | 16 | 2 | 3 | 4 | 11 | 4 | 6 | 22 | 6 |
| Corycaeus | 12 | 36 | 14 | 10 | 11 | 12 | 24 | 27 | 50 | 72 |
| Copepoda larva | 18 | 43 | 6 | 7 | | 2 | 4 | 2 | 6 | |
| Oikopleura | 8 | 6 | 1 | 1 | 2 | 2 | | | | |
| Evadne | 2 | | | | | | | | | |
| Conchoecia | 3 | 6 | 8 | 4 | 5 | 5 | 8 | 3 | 3 | 11 |
| Polychaeta | | 1 | 1 | 1 | 2 | 1 | 2 | 5 | 11 | 3 |
| Fish larva | | | | 1 | | 1 | | | 1 | |
| Fish egg | 3 | | 5 | 4 | | | | | 2 | |
| Pelagic egg | 7 | 5 | 26 | 27 | 5 | | 1 | 1 | 52 | 1 |
| Shell larva | | | 2 | | | | | | | |
| Ophiopluteus | | | 1 | | | | | | | |
| Actinotrocha | | 3 | | | | | | | 1 | |
| Euphausia | 90 | 82 | 126 | 60 | 55 | 38 | 7 | 2 | 18 | 26 |
| Lucifer | | | 1 | | 1 | | | | | |
| Mugglaea | 13 | 12 | 25 | 11 | 9 | 12 | 12 | 8 | 31 | 44 |
| Diphyes | | 2 | 2 | 1 | | | | 2 | 4 | |
| Cypridina | | | | | | | 1 | | | |
| Fritillaria | 4 | 2 | 2 | | | | | | 8 | |
| Aglaura | 15 | 23 | 15 | 5 | 5 | | 10 | 12 | 18 | 8 |
| Brachyura | 2 | | | | | | | | | 2 |
| Pteropoda | | 11 | | | | | 2 | | 1 | 1 |
| Salpa | | | | 10 | 7 | | | | | |
| Sagitta | 3 | 14 | 6 | 2 | 2 | 4 | 8 | 9 | 13 | 6 |
| Coelenterata | 13 | 36 | 22 | 4 | | 11 | 15 | 8 | 19 | 15 |
| Syphonautes | | | | | | | 1 | | | |
| Mallomonas | | | | | | | 2 | | | |
| Cirripedia | | | 1 | | 1 | 2 | | | 1 | 19 |
| Heteropoda | | | 2 | | | | | | | |
| Dolioletta | | | | | 4 | | | | | 2 |
| Phaenna | | | | | | | | 1 | | |
| Protozoa | | | | | 7 | | | | | |

April

| 01 | 02 | 03 | 04 | 05 | 07 | 08 | 09 |
|---|---|---|---|---|---|---|---|
| 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 2107 | 2018 | 1847 | 1515 | 1545 | 1255 | 1140 | 1025 |
| 65 | 98 | 118 | 142 | 135 | 125 | 130 | 127 |
| 1.7 | 2.0 | 5.0 | 8.5 | 2.0 | 10.0 | 10.0 | 14.0 |
| 21.8 | 16.4 | 57.6 | 66.3 | 15.8 | 10.6 | 53.0 | 86.0 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

June

| 01 | 02 | 03 | 04 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|
| 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| 2030 | 2125 | 1140 | 1740 | 1400 | 1240 | 1115 | 0930 | 0900 |
| 50 | 50 | 50 | 150 | 50 | 50 | 50 | 50 | 50 |
| 10.0 | 0.1 | 10.0 | 10.0 | 9.0 | 5.0 | 6.0 | 17.0 | 30.0 |
| 95.6 | 80.7 | 92.8 | 43.6 | 109.2 | 66.7 | 75.9 | 118.5 | 36.7 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

August

| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|
| 14 | 14 | 14 | 14 | 13 | 13 | 13 | 13 | 13 |
| 0600 | 0342 | 0220 | 0055 | 2330 | 2015 | 2037 | 1920 | 1810 |
| 100 | 135 | 140 | 115 | 115 | 120 | 120 | 120 | 115 |
| 3.0 | 2.0 | 6.0 | 11.0 | 5.0 | 3.5 | 11.5 | 10.0 | 10.0 |
| 36.5 | 13.7 | 48.2 | 117.3 | 44.4 | 31.9 | 82.8 | 61.8 | 70.8 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

October

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| 1905 | 1750 | 1630 | 1501 | 1345 | 1220 | 1110 | 0950 | 0825 | 0645 |
| 50 | 100 | 140 | 140 | 100 | 100 | 100 | 100 | 100 | 100 |
| 0.1 | 0.7 | 8.0 | 4.0 | 0.2 | 10.5 | 0.7 | 4.5 | 0.1 | 0.1 |
| 5.0 | 4.8 | 31.6 | 30.0 | 3.5 | 103.1 | 8.1 | 39.5 | 0.4 | 0.6 |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

November

| 01 | 02 | 03 | 04 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|
| 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 2315 | 2200 | — | 1840 | 1335 | 1315 | 1200 | 1140 |
| 50 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 2.0 | 6.0 | 0.5 | 15.0 | 5.0 | 2.0 | 2.5 | 15.0 |
| 60.3 | 115.1 | 9.4 | 125.2 | 105.3 | 19.4 | 10.1 | 195.4 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

# 207선 부유생물조사표

## Plankton Data, Line 207

| Month | Mar | | | | | |
|---|---|---|---|---|---|---|
| Station | 01 | 02 | 03 | 04 | 05 | 07 |
| Date | 9 | 9 | 9 | 9 | 9 | 10 |
| Time | 1945 | 2050 | 2140 | 2240 | 2340 | 0210 |
| Collected depth(m) | 50 | 80 | 100 | 150 | 95 | 80 |
| Volume(cc) | 5.5 | 5.0 | 3.0 | 6.0 | 4.0 | 0.1 |
| Biomass(mg/m$^3$) | 174.5 | 87.7 | 31.1 | 51.4 | 49.2 | 2.0 |
| Rate of subsample | 1/8 | 1/16 | 1/4 | 1/16 | 1/16 | 1 |
| No. of total organisms | 824 | 639 | 803 | 606 | 683 | 60 |
| No. of total the othar organisms | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | |
| Calanus | 206 | 100 | 141 | 103 | 107 | 14 |
| Eucalanus | | | 2 | 7 | 4 | 1 |
| Rhincalanus | | | | 2 | | |
| Paracalanus | 340 | 292 | 233 | 183 | 331 | 13 |
| Acrocalanus | 20 | 9 | 21 | 11 | 1 | |
| Clausocalanus | 6 | 11 | 13 | 2 | 3 | |
| Ctenocalanus | 49 | | | 1 | | |
| Pseudocalanus | 41 | 14 | 1 | 9 | 11 | 1 |
| Calocalanus | | 2 | | | | |
| Nannocalanus | 13 | | | 3 | | |
| Euchaeta | | 6 | 14 | 8 | 15 | 5 |
| Scolecithricella | | | | 1 | 4 | |
| Scolecithrix | | | 2 | 14 | 2 | |
| Centropages | 7 | 3 | 1 | 1 | | |
| Temora | | | | 1 | | |
| Metridia | 1 | | | | | |
| Mecynocera | | 1 | | | | |
| Lucicutia | | | | 3 | 2 | |
| Candacia | 1 | 5 | 6 | 7 | 2 | 1 |
| Pleuromamma | | 3 | 7 | 11 | 4 | 2 |
| Acartia | 1 | 3 | 1 | 5 | | |
| Oithona | 4 | 45 | 18 | 26 | 61 | 10 |
| Setella | | 2 | | | | |
| Oncaea | | 1 | 5 | 13 | 11 | |
| Corycaeus | 25 | 22 | 27 | 11 | 5 | 2 |
| Copepoda larva | 55 | 19 | 22 | 9 | 9 | 3 |
| Oikopleura | 2 | 5 | | 22 | 29 | |
| Conchoecia | 3 | 4 | 14 | 8 | 6 | |
| Noctiluca | | | 3 | | | |
| Polychaeta | 2 | | 2 | | | 1 |
| Fish larva | | | 1 | | | |
| Fish egg | | 2 | 6 | 9 | 2 | |
| Pelagic egg | 2 | 17 | 88 | 52 | 12 | |
| Fish scale | 4 | | | | | |
| Shell larva | | 4 | | | 3 | 1 |
| Amphipoda | | | | 2 | 4 | |
| Euphausia | 60 | 32 | 56 | 34 | 6 | 1 |
| Lucifer | 1 | | 1 | 2 | 1 | |
| Muggiaea | 7 | 4 | 13 | 9 | 5 | |
| Fritillaria | | 1 | 8 | 1 | 6 | |
| Aglaura | | | 17 | | | |
| Balanus | | | | 1 | | |
| Brachyura | 5 | 1 | 2 | | | |
| Diphyes | 1 | | | | 6 | |
| Pteropoda | 2 | 1 | | | 2 | |
| Sagitta | 2 | 3 | 6 | 3 | 2 | 2 |
| Coelenterata | | 6 | 71 | 29 | 16 | 2 |
| Phaenna | | | 1 | | 2 | |
| Star fish larva | | 1 | | | 7 | |
| Phalacrophorus | | | | 3 | 2 | 1 |
| Sarsia | | 9 | | | | |
| Polychaeta larva | | 1 | | | | |

| Mar | | | | | | April | | May | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 08 | 09 | 10 | 11 | 12 | 13 | 01 | 03 | 04 | 07 | 08 | 12 |
| 10 | 10 | 10 | 10 | 10 | 10 | 26 | 26 | 4 | 4 | 4 | 4 |
| 0250 | 0415 | 0540 | 0655 | 0830 | 0950 | 0935 | 1110 | 1035 | 1508 | 1610 | 2050 |
| 95 | 100 | 100 | 100 | 80 | 65 | 83 | 110 | 150 | 95 | 108 | 110 |
| 2.0 | 10.0 | 3.0 | 17.0 | 15.0 | 15.0 | 12.0 | 4.0 | 0.2 | 9.5 | 10.0 | 6.0 |
| 18.6 | 154.0 | 21.4 | 146.5 | 158.4 | 56.6 | 123.2 | 42.1 | 6.1 | 161.3 | 69.6 | 111.3 |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |

| June | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 07 | 08 | 09 | 10 | 11 | 12 | 13 |
| 26 | 27 | 27 | 27 | 27 | 27 | 27 | 31 | 30 | 30 | 30 | 30 |
| 1500 | 1105 | 1230 | 1335 | 1445 | 1740 | 1900 | 1230 | 1350 | 1510 | 1645 | 1630 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 4.0 | 2.0 | 1.0 | 1.0 | 1.0 | 6.0 | 13.0 | 10.0 | 5.0 | 2.0 | 1.0 | 9.5 |
| 34.5 | 12.8 | 10.4 | 15.7 | 26.4 | 92.6 | 156.6 | 52.4 | 66.0 | 44.4 | 11.2 | 118.5 |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |

| August | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 07 | 08 | 09 | 10 | 11 | 12 | 13 |
| 12 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 2335 | 0015 | 0130 | 0215 | 0330 | 0630 | 0800 | 0837 | 1115 | 1252 | 1416 | 1520 |
| 80 | 90 | 100 | 150 | 150 | 80 | 100 | 110 | 110 | 100 | 90 | 85 |
| 10.5 | 3.5 | 1.5 | 2.7 | 5.0 | 5.1 | 4.5 | 0.7 | 18.0 | 1.5 | 9.8 | 5.0 |
| 121.1 | 46.2 | 69.1 | 9.0 | 38.6 | 83.4 | 49.8 | 13.4 | 133.7 | 11.6 | 172.8 | 58.8 |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |

| October | | | | | | | | | | November | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 08 | 09 | 10 | 11 | 12 | 01 | 02 | 04 |
| 28 | 28 | 28 | 28 | 28 | 28 | 28 | 29 | 29 | 29 | 15 | 15 | 15 |
| 1140 | 1220 | 1310 | 1400 | 1500 | 2145 | 2315 | 0050 | 0210 | 0325 | 1917 | 2005 | 2155 |
| 50 | 50 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 100 | 100 |
| 1.0 | 0.01 | 2.0 | 3.5 | 12.0 | 0.1 | 0.1 | 21.0 | 3.5 | 3.0 | 5.0 | 5.0 | 8.0 |
| 24.7 | 1.5 | 86.8 | 45.5 | 162.8 | 0.3 | 7.5 | 240.8 | 27.2 | 38.6 | 199.0 | 81.1 | 91.3 |
| — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — |

# 206선 부유생물조사표

## Plankton Data, Line 206

| Month | Feb | Mar | | | | July | | | |
|---|---|---|---|---|---|---|---|---|---|
| Station | 01 | 02 | 03 | 04 | 05 | 01 | 02 | 03 | 05 |
| Date | 17 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 |
| Time | 1255 | 1455 | 1555 | 1715 | 1815 | 0840 | 0940 | 0605 | 0300 |
| Collected depth(m) | 50 | 60 | 90 | 100 | 150 | 50 | 50 | 50 | 50 |
| Volume(cc) | 0.5 | 0.5 | 2.0 | 0.3 | 0.5 | 5.0 | 2.0 | 6.0 | 1.0 |
| Biomass(mg/m$^3$) | 20.1 | 29.4 | 23.8 | 11.9 | 11.7 | 80.6 | 53.2 | 85.5 | 25.2 |
| Rate of subsample | 1 | 1/8 | 1/8 | 1/4 | 1/16 | — | — | — | — |
| No. of total organisms | 388 | 494 | 701 | 238 | 648 | — | — | — | — |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | | | | |
| Calanus | 30 | 55 | 108 | 55 | 40 | | | | |
| Eucalanus | 29 | 1 | | 2 | | | | | |
| Rhincalanus | 3 | | | | | | | | |
| Paracalanus | 91 | 105 | 156 | 66 | 404 | | | | |
| Acrocalanus | | 5 | | | | | | | |
| Clausocalanus | 6 | | 2 | 1 | 11 | | | | |
| Ctenocalanus | 6 | | 1 | | | | | | |
| Pseudocalanus | 22 | 5 | | 2 | | | | | |
| Aetideus | | | 1 | | | | | | |
| Euchaeta | 28 | 3 | 9 | 7 | 24 | | | | |
| Scolecithrix | 7 | | | | | | | | |
| Centropages | | 20 | 57 | 29 | 3 | | | | |
| Mecynocera | | | 1 | | | | | | |
| Temora | | 2 | | 2 | | | | | |
| Lucicutia | 3 | | 2 | | | | | | |
| Metridia | | 1 | | | | | | | |
| Pleuromamma | 35 | 1 | 3 | | | | | | |
| Candacia | | | 2 | 1 | 7 | | | | |
| Labidocera | | | 1 | | | | | | |
| Oithona | 8 | 6 | 9 | 5 | 5 | | | | |
| Acartia | 1 | | | | | | | | |
| Oncaea | 32 | 8 | 8 | | 4 | | | | |
| Corycaeus | 2 | 21 | 25 | 24 | 5 | | | | |
| Copepoda larva | 9 | 3 | 5 | 5 | 3 | | | | |
| Oikopleura | 1 | 1 | 4 | | 21 | | | | |
| Penilia | | 2 | | | | | | | |
| Conchoecia | 52 | 8 | 19 | 4 | 11 | | | | |
| Noctiluca | | | | | 1 | | | | |
| Polychaeta | | | 1 | | | | | | |
| Fish larva | | | | | 1 | | | | |
| Fish egg | | 2 | | | 1 | | | | |
| Pelagic egg | 3 | 94 | 53 | 2 | 22 | | | | |
| Fish scale | | | 2 | 6 | | | | | |
| Shell larva | | 4 | | 1 | | | | | |
| Ophiopluteus | | | 2 | 2 | 1 | | | | |
| Amphipoda | 2 | 3 | 2 | 7 | | | | | |
| Euphausia | 9 | 77 | 83 | 7 | 34 | | | | |
| Lucifer | 2 | | | | 1 | | | | |
| Muggiaea | | 15 | 6 | | 7 | | | | |
| Fritillaria | | | 7 | | 7 | | | | |
| Aglaura | | | 30 | | 10 | | | | |
| Balanus | | 3 | 9 | 1 | | | | | |
| Pteropoda | | | 3 | 3 | 4 | | | | |
| Sagitta | 3 | 2 | 4 | 4 | 1 | | | | |
| Coelenterata | | 46 | 84 | 1 | 17 | | | | |
| Hydromedusae | 3 | | | | | | | | |
| Liriope | | | 4 | | | | | | |
| Brachionus | | | | 1 | | | | | |
| Phaenna | | | | | 1 | | | | |
| Doliolum | 1 | 1 | | | | | | | |

| August | | | | | October | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 01 | 03 | 04 | 05 | 06 |
| 12 | 12 | 12 | 12 | 12 | 22 | 22 | 22 | 22 | 20 |
| 1003 | 1230 | 1345 | 1530 | 1740 | 1130 | 1350 | 1455 | 1815 | 1745 |
| 60 | 70 | 90 | 135 | 130 | 60 | 100 | 120 | 120 | 125 |
| 2.5 | 2.7 | 2.8 | 2.0 | 4.0 | 1.0 | 0.3 | 0.1 | 15.0 | 0.09 |
| 149.6 | 33.1 | 27.0 | 8.1 | 52.2 | 22.0 | 3.6 | 3.1 | 186.7 | 2.5 |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

# 205선 부유생물조사표

## Plankton Data, Line 205

| Month | Feb | | May | | | |
|---|---|---|---|---|---|---|
| Station | 02 | 06 | 01 | 02 | 03 | 04 |
| Date | 18 | 18 | 19 | 19 | 19 | 18 |
| Time | 0915 | 1810 | 0800 | 0540 | 0300 | 2350 |
| Collected depth(m) | 50 | 100 | 50 | 60 | 50 | 50 |
| Volume(cc) | 1.0 | 0.5 | 0.3 | 1.3 | 1.8 | 0.8 |
| Biomass($mg/m^3$) | 83.0 | 2.5 | 10.4 | 26.0 | 57.9 | 14.6 |
| Rate of subsample | 1/8 | 1 | — | — | — | — |
| No. of total organisms | 434 | 184 | — | — | — | — |
| No. of total the other organisms | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | |
| Calanus | 151 | 19 | | | | |
| Eucalanus | | 1 | | | | |
| Paracalanus | 103 | 73 | | | | |
| Acrocalanus | | 1 | | | | |
| Clausocalanus | 1 | 1 | | | | |
| Ctenocalanus | | 3 | | | | |
| Pseudocalanus | | 3 | | | | |
| Euchaeta | 2 | 2 | | | | |
| Centropages | 11 | | | | | |
| Pleuromamma | | 1 | | | | |
| Oithona | 11 | 33 | | | | |
| Oncaea | 1 | 12 | | | | |
| Corycaeus | 36 | 6 | | | | |
| Copepoda larva | 10 | 2 | | | | |
| Oikopleura | 1 | 2 | | | | |
| Conchoecia | 1 | | | | | |
| Polychaeta | 7 | | | | | |
| Euphausia | 24 | 7 | | | | |
| Lucifer | | 1 | | | | |
| Fritillaria | 56 | | | | | |
| Brachyura | | 2 | | | | |
| Pteropoda | 5 | | | | | |
| Sagitta | 2 | 5 | | | | |
| Coelenterata | 3 | | | | | |
| Ophiopluteus | 2 | | | | | |
| CyPris | 1 | | | | | |
| pterotrachea | 1 | | | | | |

| July | | | | | |
|---|---|---|---|---|---|
| 03 | 04 | 05 | 06 | 07 | 08 |
| 3 | 3 | 10 | 10 | 10 | 10 |
| 1440 | 1620 | 0840 | 1025 | 1155 | 1520 |
| 50 | 50 | 150 | 50 | 50 | 150 |
| 3.0 | 2.0 | 0.2 | 1.0 | 1.0 | 2.0 |
| 37.7 | 35.5 | 5.1 | 26.9 | 29.7 | 15.6 |
| — | — | — | — | — | — |
| — | — | — | — | — | — |
| — | — | — | — | — | — |

| Month | August | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Station | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Date | 26 | 26 | 26 | 25 | 25 | 25 | 25 | 25 |
| Time | 0435 | 0303 | 0104 | 2240 | 2000 | 1715 | 1424 | 1150 |
| Collected depth(m) | 50 | 50 | 50 | 100 | 100 | 150 | 150 | 150 |
| Volume(cc) | 1.8 | 7.0 | 4.5 | 10.0 | 15.0 | 10.0 | 6.5 | 2.0 |
| Biomass(mg/m$^3$) | 34.4 | 105.9 | 100.3 | 114.8 | 109.3 | 78.5 | 44.7 | 15.2 |
| Rate of subsample | 1/8 | 1/32 | 1/32 | 1/8 | 1/32 | 1/32 | 1/16 | 1/8 |
| No. of total organisms | 159 | 416 | 342 | 354 | 309 | 238 | 382 | 385 |
| No. of total the other organisms | — | — | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | | | |
| Calanus | 36 | 56 | 65 | 41 | 36 | 32 | 43 | 38 |
| Undinula | | | | | 6 | 4 | | |
| Eucalanus | | | | 4 | 1 | 3 | 5 | 2 |
| Paracalanus | 189 | 150 | 41 | 13 | 16 | 11 | 19 | 16 |
| Acrocalanus | | 3 | | | 7 | 4 | 7 | 16 |
| Clausocalanus | | | 19 | 10 | 16 | 33 | 39 | 37 |
| Ctenocalanus | 1 | 2 | 8 | 15 | 11 | 5 | 15 | 18 |
| Calocalanus | | | 1 | 3 | 1 | 2 | 4 | 6 |
| Euchaeta | 1 | 2 | 16 | 77 | 42 | 43 | 30 | 17 |
| Pareuchaeta | | | | | | 14 | 31 | 4 |
| Scolecithricella | | | | | 1 | | | 1 |
| Scolecithrix | | | | | | 1 | | |
| Centropages | | | 1 | 1 | | | 1 | 2 |
| Temora | 1 | | | 1 | 4 | 4 | 7 | |
| Eurytemora | | | | | 1 | | | |
| Candacia | | | 1 | | 1 | 4 | 3 | 3 |
| Calanopia | | | | | | 1 | 2 | 3 |
| Pleuromamma | | | 2 | | | | | |
| Labidocera | 2 | 1 | | | | | | |
| Acartia | 14 | 99 | 26 | 8 | 5 | 1 | 6 | 2 |
| Tortanus | 2 | | | | | | | |
| Oithona | 3 | 3 | 8 | 14 | 10 | 7 | 22 | 19 |
| Setella | 1 | | | | 1 | | 1 | 1 |
| Oncaea | 1 | | 4 | 11 | 42 | 36 | 51 | 52 |
| Corycaeus | 25 | 22 | 15 | 10 | 15 | 10 | 21 | 18 |
| Sapphirina | | | 1 | 1 | 1 | 2 | | |
| Copepoda larva | | 1 | 1 | | | 1 | | |
| Oikopleura | 2 | 5 | 4 | 13 | 30 | 5 | 3 | 32 |
| Penilia | 1 | 1 | | | | | | |
| Evadne | 1 | 8 | 11 | 3 | 3 | 1 | 2 | 4 |
| Conchoecia | 3 | 3 | | 2 | | | 1 | 2 |
| Noctiluca | | 2 | 25 | 26 | 20 | 15 | 21 | 45 |
| Polychaeta | | 2 | | | 6 | 5 | 3 | 5 |
| Podon | | 2 | 5 | 5 | | | | |
| Amphipoda | 14 | 1 | 6 | 16 | 8 | 7 | 6 | 11 |
| Euphausia | 7 | 11 | 36 | 10 | 3 | 1 | 2 | |
| Lucifer | | 3 | 2 | 6 | 1 | | | 2 |
| Muggiaea | 5 | 2 | 4 | 3 | 1 | 1 | 1 | |
| Fritillaria | 1 | 2 | | 1 | | 2 | 1 | 4 |
| Brachyura | 3 | 2 | 1 | | | 1 | | 1 |
| Pteropoda | 5 | | 1 | 4 | 3 | 4 | 4 | 7 |
| Sagitta | 4 | 19 | 17 | 34 | 14 | 18 | 27 | 14 |
| Coelenterata | 3 | 9 | 9 | 12 | | 4 | 4 | 3 |
| Doliolum | 1 | | 2 | 10 | | | | |
| Cirripedia | 4 | 2 | 3 | | | 1 | | |
| Heteropoda | | | | | 2 | | | |
| Megalopa larva | | | | | 1 | | | |
| Cyphonautes larva | | | 7 | | | | | |
| Tripneustes | | 3 | | | | | | |

| October | | | | | |
|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 07 |
| 21 | 21 | 20 | 20 | 20 | 20 |
| 0255 | 0150 | 2305 | 2120 | 1930 | 1605 |
| 55 | 60 | — | 100 | 110 | 130 |
| 0. 8 | 1. 0 | 16. 0 | 3. 0 | 1. 5 | 0. 1 |
| 24. 0 | 173. 3 | — | 28. 6 | 20. 1 | 1. 9 |
| — | — | — | — | — | — |
| — | — | — | — | — | — |
| — | — | — | — | — | — |

| December | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 1910 | 1810 | 1655 | 1540 | 1400 | 1210 | 1030 | 0840 |
| 50 | 50 | 50 | 50 | 100 | 100 | 100 | 100 |
| 1. 0 | 1. 8 | 0. 1 | 1. 0 | 3. 0 | 2. 0 | 4. 5 | 2. 0 |
| 13. 0 | 25. 0 | 30. 3 | 24. 2 | 26. 9 | 31. 9 | 51. 6 | 19. 5 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

# 204선 부유생물조사표

## Plankton Data, Line 204

| Month | Mar | | | | | |
|---|---|---|---|---|---|---|
| Station | 01 | 02 | 03 | 04 | 05 | 06 |
| Date | 3 | 3 | 3 | 2 | 2 | 2 |
| Time | 1040 | 0920 | 0830 | 1918 | 1815 | 1615 |
| Collected depth(m) | 35 | 25 | 40 | 70 | 80 | 100 |
| Volume(cc) | 4.5 | 3.0 | 0.8 | 1.0 | 0.2 | 0.2 |
| Biomass(mg/m³) | 143.1 | 191.4 | 26.7 | 83.0 | 1.2 | 4.4 |
| Rate of subsample | 1/16 | 1/8 | 1/4 | 1/4 | 1 | 1 |
| No. of total organisms | 444 | 424 | 427 | 1198 | 58 | 205 |
| No. of total the other organisms | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | |
| Calanus | 83 | 67 | 16 | 31 | 14 | 62 |
| Eucalan | | | 1 | 15 | 2 | 4 |
| Rhincalanus | | | 1 | 2 | | |
| Paracalanus | 91 | 105 | 188 | 495 | 12 | 66 |
| Acrocalanus | 1 | | 5 | | | 5 |
| Clausocalanus | 9 | 26 | | 54 | | 9 |
| Ctenocalanus | | | 4 | | | 2 |
| Pseudocalanus | 6 | 5 | | 2 | 2 | 13 |
| Nannocalanus | | | 1 | | | 1 |
| Euchaeta | 6 | 2 | 24 | 90 | 4 | 14 |
| Scolecithricella | 1 | | 1 | | | 1 |
| Scolecithrix | | | 1 | 12 | | |
| Centropages | 55 | 83 | 1 | | | 1 |
| Mecynocera | | | | 1 | | |
| Lucicutia | | | | 5 | | |
| Candacia | | | | 5 | | 3 |
| Labidocera | | | | 1 | | 1 |
| Pleuromamma | 1 | | | 15 | 3 | |
| Pontellina | | | | | | 2 |
| Oithona | 1 | 38 | 92 | 134 | 10 | 5 |
| Euterpe | | | | 2 | | |
| Oncaea | 1 | 2 | 7 | 47 | 1 | 2 |
| Clytemnestra | | | | 1 | | |
| Corycaeus | 2 | 38 | 6 | 9 | 3 | 4 |
| Sapphirina | | | | | | 1 |
| Copepoda larva | 2 | 7 | 13 | 33 | 1 | |
| Oikopleura | 1 | 5 | | 36 | 3 | 1 |
| Evadne | | | | | | 3 |
| Conchoecia | | 2 | 8 | 33 | | 5 |
| Noctiluca | 152 | | | | | |
| Polychaeta | | 1 | | 15 | | |
| Fish larva | | | | 1 | | |
| Pelagic egg | 4 | 7 | 5 | 31 | | |
| Fish scale | 6 | | 6 | | | 3 |
| Shell larva | | 12 | | | | |
| Ophiopluteus | 2 | | 4 | 1 | | |
| Actinotrocha | | | | 1 | | |
| Amphipoda | 1 | 4 | | | | |
| Euphausia | 8 | 2 | 1 | 23 | 3 | 1 |
| Lucifer | | | | 1 | | |
| Muggiaea | | 2 | 2 | 3 | | 5 |
| Fritillaria | 1 | 9 | 2 | 11 | | |
| Aglaura | | | | 5 | | |
| Balanus | 1 | | | 1 | | |
| Brachyura | | | 1 | | | |
| Diphyes | | | | 1 | | |
| Pteropoda | | | 5 | 2 | | |

| Month | Mar | | | | | |
|---|---|---|---|---|---|---|
| Station | 01 | 02 | 03 | 04 | 05 | 06 |
| Date | 3 | 3 | 3 | 2 | 2 | 2 |
| Time | 1040 | 0920 | 0830 | 1918 | 1815 | 1615 |
| Collected depth(m) | 35 | 25 | 40 | 70 | 80 | 100 |
| Volume(cc) | 4.5 | 3.0 | 0.8 | 1.0 | 0.2 | 0.2 |
| Biomass(mg/m$^3$) | 143.1 | 191.4 | 26.7 | 83.0 | 1.2 | 4.4 |
| Rate of subsample | 1/16 | 1/8 | 1/4 | 1/4 | 1 | 1 |
| No. of total organisms | 444 | 424 | 427 | 1198 | 58 | 205 |
| No. of total the other organisms | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | |
| Sagitta | 1 | 2 | 1 | 6 | | |
| Coelenterata | 2 | | 13 | 40 | | |
| Brachionus | | | | | | 2 |
| Asterina | | | 1 | | | |
| Pediastrum | 1 | | | | | |
| Cirripedia | 6 | | | | | |
| Aurelia | 2 | | | | | |
| Globigerina | 1 | 3 | | | | |
| phaenna | 1 | | | 1 | | |
| Phalacrophorus | | | 1 | 1 | | |
| Doliolatta | | | | 7 | | |
| Ceratium | | | | 9 | | |
| Quadrula | | | | 1 | | |
| Auricularia | | | | 1 | | |
| Cumacea | | | | | | 1 |

| May | | | | | | July | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 06 | 01 | 02 | 03 | 04 | 05 | 06 |
| 19 | 19 | 19 | 19 | 19 | 19 | 7 | 7 | 7 | 7 | 7 | 7 |
| 0920 | 1130 | 1340 | 1630 | 1840 | 2050 | 0830 | 0820 | 0705 | 0725 | 0910 | 1025 |
| 35 | 25 | 40 | 50 | 50 | 50 | 35 | 30 | 45 | 50 | 50 | 50 |
| 0.7 | 0.3 | 0.8 | 0.2 | 2.0 | 0.5 | 1.0 | 0.1 | 0.1 | tr | 0.1 | 2.0 |
| 48.6 | 23.4 | 33.8 | 8.6 | 80.3 | 7.5 | 23.9 | 52.5 | 10.1 | tr | 31.1 | 31.5 |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |

| September | | | | | | October | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 06 | 01 | 02 | 03 | 05 | 06 |
| 3 | 3 | 3 | 4 | 4 | 4 | 11 | 11 | 11 | 16 | 16 |
| 1650 | 1925 | 2105 | 0910 | 1110 | 1250 | 1830 | 1945 | 2055 | 1155 | 1300 |
| 40 | 30 | 40 | 50 | 95 | 100 | 40 | 30 | 40 | 80 | 115 |
| 25.0 | 3.0 | 2.0 | 4.7 | 4.0 | 2.0 | 0.1 | 0.8 | 1.0 | 0.2 | 2.0 |
| 103.6 | 78.8 | 75.7 | 77.7 | 36.0 | 15.7 | 8.2 | 32.3 | 26.1 | 5.2 | 15.3 |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — |

| December | | | | | |
|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 06 |
| 23 | 23 | 23 | 24 | 24 | 24 |
| 1040 | 1200 | 1310 | 1000 | 1110 | 1215 |
| 40 | 25 | 35 | 50 | 50 | 50 |
| 0.1 | 0.3 | 1.0 | 1.8 | 1.0 | 1.0 |
| 4.7 | 17.6 | 18.9 | 29.6 | 26.2 | 20.8 |
| — | — | — | — | — | — |
| — | — | — | — | — | — |
| — | — | — | — | — | — |

# 203선 부유생물조사표

## Plankton Data, Line 203

| Month | March | | | August | | |
|---|---|---|---|---|---|---|
| Station | 01 | 02 | 03 | 01 | 02 | 03 |
| Date | 1 | 1 | 1 | 13 | 13 | 13 |
| Time | 1430 | 1315 | 1000 | 0215 | 0550 | 0805 |
| Collected depth(m) | 50 | 90 | 100 | 50 | 100 | 100 |
| Volume(cc) | 1.3 | 3.0 | 3.0 | 0.3 | 0.1 | 3.4 |
| Biomass($mg/m^3$) | 55.3 | 36.7 | 38.4 | 15.5 | 1.5 | 31.0 |
| Rate of subsample | 1/4 | 1/8 | 1/8 | 1/2 | 1 | 1/8 |
| No. of total organisms | 605 | 347 | 525 | 451 | 136 | 349 |
| No. of total the other organisms | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | |
| Calanus | 56 | 32 | 13 | 27 | 13 | 38 |
| Undinula | | | 1 | | | |
| Paracalanus | 369 | 110 | 299 | 221 | 42 | 73 |
| Clausocalanus | | 5 | 5 | 15 | 2 | 13 |
| Pseudocalanus | 2 | | | | 1 | 1 |
| Nannocalanus | | | 1 | | | |
| Ctenocalanus | | | | 4 | 11 | 17 |
| Euchaeta | 13 | 28 | 47 | | 1 | 21 |
| Scolecithrix | 2 | 4 | 5 | | | |
| Temora | | | | 2 | | |
| Candacia | | 1 | | | | |
| Labidocera | | | | 1 | | |
| Acartia | | | | 74 | 15 | 41 |
| Oithona | 110 | 61 | 66 | 7 | 1 | 42 |
| Setella | | | 3 | 2 | | |
| Oncaea | 1 | | 2 | | | 1 |
| Clytemnestra | | 1 | 3 | | | |
| Corycaeus | 11 | 4 | 7 | 15 | 3 | 28 |
| Sapphirina | | | 1 | | | |
| Copepoda larva | 11 | 21 | 11 | | 1 | |
| Oikopleura | 2 | 4 | 8 | 1 | | 1 |
| Conchoecia | | 2 | 2 | 1 | | 3 |
| Polychaeta | 3 | 2 | 2 | | | |
| Ophiopluteus | 1 | | 1 | | | |
| Amphipoda | 1 | | | | | |
| Euphausia | 14 | 11 | 7 | 18 | 12 | 25 |
| Decapoda | | | | 3 | | |
| Muggiaea | | 2 | 4 | | | |
| Fritillaria | | 3 | 1 | 1 | | 1 |
| Aglaura | | 7 | 6 | | | |
| Pteropoda | 1 | 1 | 6 | | | |
| Brachyura | | 1 | | | | |
| Sagitta | 1 | 3 | 4 | 7 | 5 | 9 |
| Coelenterata | 4 | 3 | 7 | | | |
| Asterina | | 4 | | | | |
| Actinotrocha | | | 2 | | | |
| Penilia | | | | 3 | 1 | |
| Evadne | | | | 29 | 10 | 11 |
| Noctiluca | | | | | 7 | |
| Podon | | | | 3 | | |
| Cirripedia | | | | 2 | 5 | 1 |
| Fish egg | | 2 | | 3 | | |
| Pelagic egg | 3 | 34 | 11 | 6 | | 7 |
| Fish scale | | 1 | | | | |

| October | | | December | | |
|---|---|---|---|---|---|
| 01 | 02 | 03 | 01 | 02 | 03 |
| 13 | 13 | 13 | 7 | 9 | 9 |
| 1330 | 1500 | 1630 | 1250 | 1310 | 1505 |
| 50 | 50 | 50 | 45 | 50 | 50 |
| 3.0 | 4.0 | 6.0 | 1.2 | 1.3 | 1.2 |
| 78.1 | 192.9 | 27.1 | 80.7 | 54.7 | 44.5 |
| — | — | — | — | — | — |
| — | — | — | — | — | — |
| — | — | — | — | — | — |

# 313선 부유생물조사표

## Plankton Data, Line 313

| Month | Mar | | | | Feb | April | | | |
|---|---|---|---|---|---|---|---|---|---|
| Station | 02 | 03 | 05 | 07 | 09 | 03 | 04 | 06 | 08 |
| Date | 1 | 1 | 1 | 1 | 28 | 22 | 22 | 22 | 22 |
| Time | 0800 | 0645 | 0410 | 0130 | 2310 | 0930 | 1140 | 1700 | 2130 |
| Collected depth(m) | 80 | 90 | 80 | 70 | 60 | 30 | 30 | 30 | 30 |
| Volume(cc) | 1.2 | 2.5 | 0.5 | 2.0 | 1.5 | 0.3 | 0.1 | 0.5 | 1.2 |
| Biomass(mg/m$^3$) | 34.6 | 17.5 | 14.5 | 21.6 | 36.7 | 20.8 | 18.3 | 17.2 | 75.6 |
| Rate of Subsample | 1/4 | 1/2 | 1/2 | 1/4 | 1 | — | — | — | — |
| No. of total organisms | 501 | 838 | 263 | 310 | 483 | — | — | — | — |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | | | | |
| Calanus | 21 | 17 | 22 | 32 | 22 | | | | |
| Paracalanus | 207 | 507 | 145 | 181 | 321 | | | | |
| Clausocalanus | | 6 | 2 | | | | | | |
| Ctenocalanus | | 5 | | | | | | | |
| Euchaeta | 40 | 102 | 20 | 26 | 21 | | | | |
| Scolecithricella | | | | | 1 | | | | |
| Scolecithrix | 4 | 16 | 3 | 2 | 1 | | | | |
| Centropages | | 1 | | | 1 | | | | |
| Pleuromamma | | | | 1 | | | | | |
| Oithona | 142 | 54 | 2 | 8 | 22 | | | | |
| Setella | 1 | 1 | 5 | 2 | 3 | | | | |
| Euterpe | | 1 | | 1 | 3 | | | | |
| Oncaea | 1 | | | | | | | | |
| Clytemnestra | 1 | | | | | | | | |
| Corycaeus | 6 | 10 | 12 | 11 | 15 | | | | |
| Copepoda larva | 10 | 4 | 4 | 2 | 9 | | | | |
| Oikopleura | 1 | 3 | | 3 | 6 | | | | |
| Conchoecia | 1 | 1 | 3 | 1 | 6 | | | | |
| Polychaeta | 6 | 3 | 9 | | 1 | | | | |
| Shell larva | | 2 | 6 | 17 | 15 | | | | |
| Ophiopluteus | 1 | | | | | | | | |
| Amphipoda | 3 | 2 | 5 | | 1 | | | | |
| Euphausia | 10 | 6 | 1 | 1 | 4 | | | | |
| Decapoda | 1 | | | | | | | | |
| Lucifer | | | | | 1 | | | | |
| Muggiaea | 3 | 14 | 2 | 5 | 1 | | | | |
| Fritillaria | 9 | 6 | | | | | | | |
| Aglaura | 2 | | | 3 | 1 | | | | |
| Brachyura | | 1 | | 1 | | | | | |
| Diphyes | 1 | 3 | | | | | | | |
| Pteropoda | 3 | | 2 | 1 | 9 | | | | |
| Sagitta | 2 | 9 | 6 | 6 | 11 | | | | |
| Coelenterata | 8 | 27 | 7 | 3 | 2 | | | | |
| Asterina | | 1 | | 1 | 1 | | | | |
| Cirripedia | | | | | 1 | | | | |
| Globigerina | 1 | | | | | | | | |
| Phalacrophorus | | | 3 | | | | | | |
| Tornaria | 1 | 1 | | | | | | | |
| Fish egg | | | | 1 | | | | | |
| Fish larva | | 1 | | 1 | | | | | |
| Pelagic egg | 5 | 34 | | | | | | | |
| Fish scale | | | 1 | | | | | | |

| Month | August | | | |
|---|---|---|---|---|
| station | 03 | 05 | 07 | 09 |
| Date | 13 | 13 | 14 | 14 |
| Time | 2040 | 2345 | 0250 | 0600 |
| Collected depth(m) | 50 | 50 | 50 | 50 |
| Volume(cc) | 7.0 | 4.5 | 0.5 | 0.5 |
| Biomass($mg/m^3$) | 170.6 | 97.1 | 17.1 | 27.3 |
| Rate of Subsample | 1/64 | 1/32 | 1/4 | 1/4 |
| No. of total organisms | 487 | 414 | 365 | 365 |
| No. of total the other organisms | — | — | — | — |
| ZOOPLANKTON | | | | |
| Calanus | 26 | 21 | 46 | 27 |
| Nannocalanus | 1 | 2 | | |
| Paracalanus | 24 | 47 | 42 | 59 |
| Clausocalanus | 9 | 4 | 6 | 4 |
| Ctenocalanus | 32 | 17 | 35 | 12 |
| Euchaeta | 18 | 15 | 4 | 10 |
| Labidocera | | | | 1 |
| Acartia | 249 | 141 | 110 | 90 |
| Oithona | 5 | 13 | 13 | 5 |
| Setella | | 1 | | |
| Oncaea | 1 | 1 | 1 | |
| Corycaeus | 1 | 5 | 5 | 15 |
| Copepoda larva | 1 | 2 | | |
| Oikopleura | 7 | | | 1 |
| Amphipoda | 6 | 4 | 3 | 12 |
| Euphausia | 8 | 3 | 2 | 2 |
| Fritillaria | 2 | 1 | 2 | 6 |
| Sagitta | 2 | 6 | 3 | 27 |
| Coelenterata | | 1 | | |
| Podon | | | 8 | 2 |
| Evadne | 92 | 114 | 67 | 87 |
| Balanus | | | 1 | |
| Fish egg | | 1 | 5 | |
| Fish larva | 2 | | | |
| Pelagic egg | 1 | 15 | 9 | 5 |

| October | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 16 | 17 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 0940 | 1000 | 1130 | 1255 | 1420 | 1555 | 1723 | 1833 | 2023 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 3.5 | 2.0 | 2.7 | 4.5 | 1.2 | 4.8 | 2.2 | 2.5 | 2.5 |
| 93.7 | 57.8 | 92.8 | 172.4 | 29.9 | 132.0 | 46.6 | 50.3 | 91.5 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

| December | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 9 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1750 | 0835 | 1009 | 1135 | 1310 | 1445 | 1610 | 1750 | 1917 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 0.6 | 1.0 | 1.0 | 0.8 | 2.0 | 1.1 | 0.4 | 1.9 | 2.7 |
| 40.4 | 39.1 | 61.1 | 55.3 | 48.7 | 34.8 | 9.6 | 60.6 | 89.2 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

# 314선 부유생물조사표

## Plankton Data, Line 314

| Month | May | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Station | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |
| Date | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 23 |
| Time | 0930 | 0600 | 0400 | 0130 | 2250 | 2010 | 1720 | 1440 | 1200 |
| Collected depth(m) | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Volume(cc) | 0.2 | 1.0 | 0.1 | 0.1 | 0.6 | 0.3 | 0.5 | 1.0 | 0.1 |
| Biomass(mg/m³) | 3.8 | 2.3 | 0.6 | 3.1 | 5.0 | 35.8 | 5.0 | 9.4 | 6.3 |
| Rate of Subsample | — | — | — | — | — | — | — | — | — |
| No. of total organisms | — | — | — | — | — | — | — | — | — |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — |

| July | | | | | | August | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 00 | 02 | 04 | 06 | 08 | 10 | 00 | 02 | 04 | 06 | 08 | 10 |
| 10 | 7 | 7 | 8 | 8 | 8 | 18 | 17 | 17 | 17 | 17 | 17 |
| 2015 | 1920 | 1720 | 1045 | 1350 | 1710 | 0310 | 2128 | 1700 | 1240 | 0820 | 0320 |
| 50 | 50 | 50 | 50 | 50 | 50 | 100 | 100 | 100 | 100 | 50 | 50 |
| 5.0 | 5.0 | 0.1 | 0.3 | 1.0 | 2.0 | 9.0 | 7.5 | 5.0 | 3.5 | 0.9 | 1.8 |
| 92.7 | 48.9 | 17.6 | 11.3 | 25.1 | 37.7 | 83.7 | 103.9 | 78.6 | 44.6 | 6.5 | 53.3 |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |

| October | | | | December | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 00 | 02 | 04 | 06 | 00 | 02 | 04 | 06 | 08 | 10 |
| 20 | 20 | 16 | 16 | 24 | 24 | 25 | 25 | 25 | 25 |
| 1350 | 1020 | 1620 | 2200 | 1810 | 2115 | 0030 | 0320 | 0635 | 0940 |
| 50 | 110 | 95 | 110 | 135 | 105 | — | 100 | 100 | 80 |
| 0.09 | 13.0 | 0.07 | 0.1 | 5.0 | 5.0 | — | 0.8 | 3.0 | 4.5 |
| 5.4 | 20.1 | 2.0 | 4.0 | 52.5 | 43.3 | — | 9.7 | — | 70.6 |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

# 315선 부유생물조사표

## Plankton Data, Line 315

| Month | July | | | | |
|---|---|---|---|---|---|
| station | 08 | 10 | 12 | 14 | 16 |
| Date | 8 | 10 | 9 | 9 | 9 |
| Time | 2340 | 1725 | 0920 | 0620 | 0250 |
| Collected depth(m) | 50 | 50 | 50 | 50 | 50 |
| Volume(cc) | 0.5 | 5.0 | 1.0 | 0.5 | 0.1 |
| Biomass($mg/m^3$) | 30.2 | 78.4 | 21.4 | 15.5 | 8.6 |
| Rate of subsample | — | — | — | — | — |
| No. of total organisms | — | — | — | — | — |
| No. of total the other organisms | — | — | — | — | — |

| Month | August | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Station | 06 | 08 | 10 | 12 | 14 | 16 | 18 | 20 |
| Date | 25 | 24 | 24 | 24 | 24 | 24 | 24 | 23 |
| Time | 0337 | 2309 | 1822 | 1353 | 1913 | 0505 | 0017 | 1959 |
| Collected depth(m) | 150 | 150 | 150 | 100 | 100 | 50 | 50 | 50 |
| Volume(cc) | 5.5 | 6.0 | 8.5 | 0.3 | 4.5 | 14.0 | 4.5 | 1.0 |
| Biomass(mg/m$^3$) | 40.5 | 40.4 | 62.3 | 7.2 | 16.4 | 419.0 | 107.7 | 88.1 |
| Rate of subsample | 1/32 | 1/32 | 1/32 | 1/16 | 1/32 | 1/64 | 1/32 | 1/16 |
| No. of total organisms | 489 | 429 | 315 | 232 | 319 | 354 | 257 | 294 |
| No. of total the other organisms | — | — | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | | | |
| **Calanus** | 34 | 42 | 35 | 21 | 17 | 7 | 2 | 45 |
| Undinula | | 4 | 3 | 2 | | | | |
| Eucalanus | 13 | 11 | 4 | 5 | 1 | 1 | | |
| Paracalanus | 12 | 20 | 8 | 6 | 51 | 43 | 13 | 58 |
| Acrocalanus | 7 | 3 | | | 18 | 1 | 2 | 5 |
| Clausocalanus | 114 | 39 | 35 | 24 | 30 | 26 | 5 | 6 |
| Ctenocalanus | 22 | 9 | 11 | 9 | 13 | 10 | 3 | 2 |
| Pseudocalanus | | | | 2 | | | | |
| Calocalanus | 4 | 4 | 2 | 1 | 1 | 3 | | |
| Euchaeta | 26 | 46 | 13 | 6 | 18 | | | 7 |
| Pareuchaeta | 10 | 11 | 4 | 1 | 8 | 13 | | |
| Scolecithricella | 1 | 1 | | 1 | | | | |
| Scolecithrix | | | 1 | | 2 | | | 1 |
| Mecynocera | 2 | 3 | 1 | | | | | |
| Temora | 2 | 5 | 2 | 1 | 2 | | | |
| Lucicutia | 1 | 1 | | | | | | |
| Pleuromamma | 1 | 5 | | | | | | |
| Candacia | 7 | 4 | 1 | 2 | | | | |
| Labidocera | 1 | | | | | 1 | | |
| Calanopia | 2 | 3 | 2 | 1 | | | | |
| Acartia | 5 | 5 | 4 | 8 | 9 | 166 | 148 | 94 |
| Oithona | 13 | 21 | 16 | 8 | 16 | 7 | 47 | 5 |
| Setella | | | 1 | 1 | | | | |
| Oncaea | 63 | 47 | 53 | 43 | 1 | 1 | 1 | 1 |
| Corycaeus | 16 | 20 | 14 | 15 | 20 | 7 | 1 | 11 |
| Sapphirina | | | 1 | | | | | |
| Copilia | 1 | | 2 | | | | | |
| Clytemnestra | 1 | | 2 | 1 | | | | |
| Copepoda larva | 7 | 1 | | 1 | 7 | | | |
| Oikopleura | 16 | 18 | 9 | 10 | 9 | 3 | | |
| Penilia | | 1 | | | | | | 1 |
| Evadne | | 2 | 1 | 1 | 3 | 14 | 16 | 10 |
| Conchoecia | 6 | 3 | 3 | | | | | |
| Noctiluca | 15 | 36 | 38 | 39 | 2 | 1 | 2 | |
| Podon | | | | | | | | 2 |
| Fish larva | 4 | 1 | | | | | 1 | |
| Fish egg | | 1 | | | | | 1 | |
| Pelagic egg | 30 | 8 | 16 | 6 | 38 | 2 | | |
| Ophiopluteus | | 1 | | | | | | |
| Amphipoda | 4 | 8 | 5 | 6 | 22 | 13 | 3 | 26 |
| Euphausia | 11 | 7 | 1 | 1 | 10 | 23 | 3 | 12 |
| Lucifer | 1 | 4 | | 1 | 1 | | | |
| Muggiaea | 1 | | | | 2 | | | |
| Fritillaria | 1 | 5 | | 1 | | | | |
| Brachyura | | 1 | | | | | 1 | |
| Pteropoda | 11 | 4 | 4 | 3 | 2 | | | |
| Sagitta | 18 | 16 | 21 | 2 | 9 | 3 | 5 | 16 |
| Coelenterata | 2 | 2 | 1 | 2 | 2 | | | |
| Doliolum | | 2 | | | 5 | | 2 | |
| Heteropoda | | 1 | | | | | | |
| Megalopa larva | 1 | | | | | | | |
| Phaenna | | | 1 | | | | | |
| Phalacrophorus | 3 | 2 | | 1 | | | | |
| Siphonautes larva | | 1 | | | | | | |
| Alima larva | | | | | | | 1 | 2 |

| October | | | | | December | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 12 | 14 | 16 | 18 | 10 | 12 | 14 | 16 | 18 | 20 |
| 20 | 20 | 19 | 19 | 19 | 26 | 26 | 25 | 25 | 25 | 25 |
| 0610 | 0240 | 2325 | 2005 | 1750 | 0340 | 0040 | 2125 | 1820 | 1515 | 1225 |
| 150 | 120 | 110 | 110 | 90 | 100 | 100 | 100 | 100 | 80 | 64 |
| 4.0 | 0.1 | 0.1 | 4.0 | 7.0 | 3.0 | 3.0 | 7.0 | 4.5 | 4.0 | 1.0 |
| 24.6 | 5.4 | 2.6 | 40.7 | 97.3 | 41.5 | 50.3 | 73.2 | 40.6 | 60.1 | 31.9 |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — |

# 서 해 부 유 생 물 조 사 성 적

# PLANKTON DATA
# WESTERN WATERS

1 9 6 7

# 312선 부유생물조사표

## Plankton Data, Line 312

| Month | Feb | | | | April | | Aug | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Station | 02 | 05 | 07 | 09 | 04 | 05 | 04 | 06 | 08 | 10 |
| Date | 26 | 26 | 28 | 28 | 23 | 23 | 16 | 15 | 14 | 14 |
| Time | 1110 | 1535 | 0700 | 0955 | 1140 | 1920 | 0900 | 0855 | 1250 | 0940 |
| Collected depth(m) | 65 | 92 | 90 | 80 | 30 | 30 | 50 | 50 | 50 | 50 |
| Volume(cc) | 0.7 | 1.0 | 1.5 | 3.0 | 0.1 | 0.3 | 3.0 | 0.1 | 0.2 | 0.5 |
| Biomass(mg/m$^3$) | 11.6 | 37.6 | 16.9 | 7.9 | 24.0 | 27.7 | 70.4 | 35.0 | 14.6 | 19.9 |
| Rate of subsample | 1 | 1 | 1 | 1 | — | — | 1/32 | 1/8 | 1/4 | 1/4 |
| No. of total organisms | 124 | 328 | 335 | 127 | — | — | 303 | 266 | 216 | 371 |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — | — |
| **ZOOPLANKTON** | | | | | | | | | | |
| Calanus | 17 | 60 | 40 | 10 | | | 32 | 6 | 17 | 7 |
| Eucalanus | | | 1 | | | | | | | |
| Paracalanus | 44 | 43 | 78 | 40 | | | 150 | 85 | 38 | 42 |
| Clausocalanus | 1 | 4 | 7 | | | | 5 | | 1 | 6 |
| Pseudocalanus | 1 | 3 | 5 | 3 | | | | | | |
| Euchaeta | 13 | 54 | 80 | 23 | | | 7 | 11 | 1 | 5 |
| Scolecithricella | 7 | 17 | 15 | | | | | | | |
| Scolecithrix | | 5 | 12 | 8 | | | | | | |
| Centropages | 2 | 2 | | 2 | | | | | | |
| Labidocera | 1 | | | | | | | | 1 | 1 |
| Acartia | 2 | 1 | 1 | | | | 57 | 5 | 38 | 44 |
| Oithona | 1 | 6 | 8 | 3 | | | 5 | 6 | 21 | 92 |
| Setella | | 1 | | | | | | | | |
| Oncaea | | 1 | | | | | | | | |
| Corycaeus | 3 | 1 | 4 | | | | 21 | 15 | 5 | 24 |
| Copepoda larva | | 3 | | 2 | | | | | 1 | |
| Oikopleura | | | 8 | 4 | | | | 5 | 25 | |
| Conchoecia | 3 | 4 | 6 | 7 | | | | | | |
| Polychaeta | | | 1 | | | | | | | |
| Amphipoda | 1 | | | | | | 13 | 15 | 5 | 30 |
| Euphausia | 7 | 7 | 9 | 6 | | | | 2 | | 1 |
| Muggiaea | 4 | 4 | 5 | | | | | | | |
| Fritillaria | | | | 1 | | | 1 | | 9 | 4 |
| Balanus | | | | 1 | | | | | | |
| Diphyes | | | 1 | | | | | | | |
| Brachyura | | 1 | 4 | | | | | 3 | | |
| Aglaura | | 4 | 12 | 1 | | | | | | |
| Sagitta | 7 | 58 | 25 | 6 | | | 3 | 5 | 16 | 15 |
| Coelenterata | 6 | 11 | 4 | 2 | | | | | | |
| Phaenna | | | 1 | | | | | | | |
| Siphonautes | | | 1 | | | | | | | |
| Lingula larva | | | | 4 | | | | | | |
| Penilia | | | | | | | | | 1 | 1 |
| Evadne | | | | | | | 3 | 12 | 18 | 99 |
| Lucifer | | | | | | | 1 | | | |
| Salpa | | | | | | | | 11 | | |
| Doliolum | | | | | | | | 6 | | |
| Fish larva | | | | | | | | 2 | 3 | |
| Fish egg | 1 | | | | | | | 1 | 12 | |
| Fish scale | 2 | 1 | | 1 | | | | | | |
| Shell larva | | | | 2 | | | | | 1 | |
| Pelagic egg | 1 | 32 | 7 | 1 | | | 5 | 76 | 3 | |

| October | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 19 |
| 1220 | 1033 | 0915 | 0730 | 0555 | 0435 | 0315 | 0140 | 2410 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 2.0 | 5.0 | 0.2 | 3.0 | 2.2 | 4.0 | 5.5 | 5.0 | 5.0 |
| 44.2 | 119.8 | 24.2 | 173.5 | 71.8 | 97.9 | 186.0 | 152.0 | 179.9 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

| December | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 12 |
| 1130 | 1000 | 0835 | 0700 | 0523 | 0347 | 0217 | 0045 | 2315 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 2.0 | 0.8 | 1.5 | 3.7 | 1.4 | 1.5 | 0.6 | 0.8 | 1.7 |
| 42.3 | 30.2 | 53.0 | 112.2 | 39.6 | 20.0 | 9.8 | 24.4 | 51.2 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

# 311선 부유생물조사표

## Plankton Data, Line 311

| Month | Feb | | | June | | | August | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Station | 05 | 07 | 09 | 07 | 08 | 09 | 04 | 05 | 07 | 09 |
| Date | 28 | 28 | 28 | 22 | 22 | 22 | 16 | 18 | 18 | 18 |
| Time | 2400 | 1925 | 1635 | 1100 | 1245 | 1430 | 1830 | 1940 | 0910 | 1140 |
| Collected depth(m) | 70 | 90 | 80 | 50 | 50 | 50 | 35 | 50 | 50 | 50 |
| Volume(cc) | 0.2 | 2.0 | 5.0 | 0.5 | 0.1 | 0.1 | 3.2 | 3.0 | 1.5 | 2.1 |
| Biomass(mg/m$^3$) | 3.3 | 23.4 | 59.9 | 8.8 | 3.5 | 4.9 | 189.8 | 65.4 | 39.0 | 69.2 |
| Rate of subsample | 1 | 1 | 1 | — | — | — | 1/8 | 1/16 | 1/16 | 1/16 |
| No. of total organisms | 65 | 425 | 437 | — | — | — | 498 | 376 | 548 | 483 |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | | | | | |
| Calanus | 29 | 103 | 64 | | | | 122 | 91 | 4 | 29 |
| Paracalanus | 16 | 57 | 28 | | | | 60 | 121 | 133 | 53 |
| Clausocalanus | | | 1 | | | | | | 2 | 1 |
| Euchaeta | | 2 | 8 | | | | 14 | 10 | 1 | |
| Scolecithricella | | 1 | 1 | | | | | | | |
| Centropages | | | | | | | | | 1 | 1 |
| Labidocera | 2 | | | | | | 3 | | | |
| Acartia | 1 | 7 | 5 | | | | 20 | 11 | 34 | 67 |
| Tortanus | | | | | | | | | | 1 |
| Oithona | 5 | 44 | 69 | | | | 6 | 8 | 56 | 46 |
| Corycaeus | 2 | 14 | 3 | | | | 29 | 13 | 12 | 5 |
| Setella | 2 | 19 | | | | | | | | |
| Copepoda larva | | 1 | | | | | | | | |
| Oikopleura | 1 | | 2 | | | | 17 | 1 | 17 | 3 |
| Penilia | | | | | | | 2 | 4 | 1 | 5 |
| Evadne | | | | | | | 72 | 86 | 234 | 199 |
| Amphipoda | | 3 | 1 | | | | 4 | 3 | 9 | 23 |
| Euphausia | | 2 | 4 | | | | 9 | 1 | 2 | |
| Fritillaria | | | | | | | 42 | | 7 | 7 |
| Brachyura | | | | | | | 9 | | | |
| Salpa | | | | | | | | | 1 | |
| Sagitta | 6 | 167 | 245 | | | | 59 | 2 | 10 | 43 |
| Coelenterata | | 2 | 1 | | | | 2 | 1 | 1 | |
| Alima | | | | | | | 1 | | | |
| Conchoecia | | 3 | | | | | | | | |
| Tornaria | | | 1 | | | | | | | |
| Phaenna | | | 1 | | | | | | | |
| Fish larva | | | | | | | | | 3 | |
| Fish egg | | | | | | | | | 7 | |
| Fish scale | | | 1 | | | | 1 | | | |
| Pelagic egg | 1 | | 1 | | | | 26 | 23 | 13 | |
| Shell larva | | | 1 | | | | | 1 | | |

| October | | | | | | |
|---|---|---|---|---|---|---|
| 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 20 | 20 | 21 | 21 | 22 | 22 | 22 |
| 1820 | 1940 | 0720 | 0850 | 0715 | 0805 | 1020 |
| 30 | 50 | 50 | 50 | 50 | 50 | 50 |
| 0.3 | 3.2 | 6.1 | 0.5 | 0.3 | 0.5 | 0.1 |
| 21.4 | 61.3 | 171.4 | 41.8 | 16.7 | 140.2 | 3.5 |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |

| December | | | | | | |
|---|---|---|---|---|---|---|
| 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 13 | 13 | 13 | 14 | 18 | 16 | 16 |
| 1740 | 1930 | 2107 | 0512 | 0700 | 0917 | 1110 |
| 30 | 50 | 50 | 50 | 50 | 50 | 50 |
| 2.0 | 1.1 | 0.4 | 1.2 | 0.8 | 1.4 | 5.0 |
| 128.1 | 28.4 | 89.8 | 30.2 | 13.5 | 19.5 | 53.5 |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |

# 310선 부유생물조사표

## Plankton Data, Line 310

| Month | Mar | | | | April | |
|---|---|---|---|---|---|---|
| Station | 03 | 05 | 07 | 09 | 05 | 07 |
| Date | 1 | 1 | 1 | 1 | 24 | 24 |
| Time | 0620 | 0911 | 1140 | 1507 | 2330 | 1920 |
| Collected depth(m) | 27 | 70 | 10 | 85 | 30 | 30 |
| Volume(cc) | 10.0 | 5.0 | 1.0 | 1.5 | 0.2 | 0.1 |
| Biomass(mg/m$^3$) | 530.3 | 54.2 | 11.4 | 11.8 | 27.7 | 12.6 |
| Rate of subsample | 1/4 | 1/4 | 1 | 1/2 | — | — |
| No. of total organisms | 231 | 294 | 291 | 306 | — | — |
| No. of total the other organisms | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | |
| Calanus | 98 | 102 | 68 | 69 | | |
| Paracalanus | 15 | 32 | 32 | 19 | | |
| Euchaeta | | 1 | 1 | | | |
| Scolecithricella | | | | 1 | | |
| Centropages | | 1 | 1 | | | |
| Labidocera | 7 | 1 | | | | |
| Acartia | 8 | 6 | 10 | 35 | | |
| Oithona | 23 | 41 | 86 | 73 | | |
| Setella | | 9 | | 6 | | |
| Corycaeus | 9 | 14 | 29 | 29 | | |
| Copepoda larva | | | | 2 | | |
| Oikopleura | 2 | 1 | 2 | 8 | | |
| Polychaeta | 1 | | | | | |
| Amphipoda | 2 | 1 | 5 | 1 | | |
| Euphausia | 1 | 1 | 1 | 4 | | |
| Pteropoda | | | 1 | | | |
| Sagitta | 62 | 77 | 47 | 55 | | |
| Coelenterata | | | 1 | | | |
| Fish larva | 1 | 6 | 1 | | | |
| Pelagic egg | 1 | 4 | 1 | | | |
| Shell larva | 1 | 1 | 2 | 3 | | |

| Month | June | | | | | Aug | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Station | 05 | 06 | 07 | 08 | 09 | 03 | 04 | 06 | 08 | 10 |
| Date | 23 | 23 | 22 | 22 | 22 | 18 | 18 | 18 | 18 | 18 |
| Time | 0230 | 0045 | 2300 | 2115 | 1935 | 0155 | 0010 | 2120 | 1840 | 1625 |
| Collected depth(m) | 50 | 50 | 50 | 50 | 50 | 25 | 50 | 50 | 50 | 50 |
| Volume(cc) | 0.5 | 0.1 | 0.1 | 0.1 | 0.05 | 0.1 | 3.5 | 2.0 | 1.7 | 2.0 |
| Biomass(mg/m$^3$) | 10.8 | 6.1 | 5.9 | 3.8 | 1.9 | 8.8 | 149.7 | 279.3 | 41.5 | 54.1 |
| Rate of subsample | — | — | — | — | — | 1/2 | 1/32 | 1/16 | 1/8 | 1/8 |
| No. of total organisms | — | — | — | — | — | 274 | 455 | 583 | 481 | 465 |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | | | | | |
| Calanus | | | | | | 23 | 62 | 109 | 48 | 59 |
| Paracalanus | | | | | | 114 | 214 | 85 | 41 | 27 |
| Euchaeta | | | | | | 3 | 2 | | | |
| Centropages | | | | | | | | | 1 | |
| Acartia | | | | | | 26 | 21 | 113 | 25 | 47 |
| Oithona | | | | | | 32 | 24 | 59 | 63 | 99 |
| Setella | | | | | | 1 | | | | 1 |
| Corycaeus | | | | | | 9 | 11 | 16 | 4 | 7 |
| Copepoda larva | | | | | | | 2 | | | |
| Oikopleura | | | | | | 1 | 3 | 2 | 1 | |
| Amphipoda | | | | | | 2 | 3 | 5 | 7 | 2 |
| Euphausia | | | | | | | 2 | 4 | 4 | |
| Sagitta | | | | | | 9 | 20 | 44 | 64 | 31 |
| Coelenterata | | | | | | | 1 | 9 | 3 | 10 |
| Penilia | | | | | | 6 | 3 | 13 | 6 | 11 |
| Evadne | | | | | | 41 | 78 | 103 | 207 | 159 |
| Muggiaea | | | | | | | | 2 | | |
| Fritillaria | | | | | | 6 | 3 | 13 | 6 | 11 |
| Salpa | | | | | | | | 1 | | |
| Doliolum | | | | | | | | 2 | | |
| Fish larva | | | | | | | 3 | | | |
| Fish egg | | | | | | | | | | 1 |
| Pelagic egg | | | | | | 1 | 3 | 3 | 1 | |

| October | | | | | | | |
|---|---|---|---|---|---|---|---|
| 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 23 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 0100 | 2330 | 2215 | 1840 | 1900 | 1735 | 1625 | 1450 |
| 20 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 2.5 | 1.0 | 1.7 | 1.8 | 0.1 | 0.1 | 0.1 | 0.1 |
| 202.0 | 67.7 | 34.9 | 15.2 | 15.0 | 12.2 | 2.5 | 6.5 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

| December | | | | | | | |
|---|---|---|---|---|---|---|---|
| 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 0350 | 0217 | 0038 | 2255 | 2117 | 1940 | 1755 | 1610 |
| 25 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 0.9 | 0.3 | 0.3 | 1.2 | 2.2 | 1.2 | 0.1 | 2.0 |
| 32.8 | 11.8 | 11.7 | 23.4 | 42.3 | 22.9 | 5.0 | 33.0 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

# 309선 부유생물조사표

## Plankton Data Line 309

| Month | Mar | | | | | April | | | |
|---|---|---|---|---|---|---|---|---|---|
| Station | 01 | 03 | 05 | 07 | 09 | 01 | 04 | 06 | 07 |
| Date | 2 | 2 | 2 | 1 | 1 | 25 | 25 | 25 | 25 |
| Time | 0743 | 0506 | 0240 | 2346 | 2100 | 0910 | 1530 | 1950 | 2200 |
| Collected depth(m) | 16 | 50 | 65 | 60 | 80 | 25 | 30 | 30 | 30 |
| Volume(cc) | 2.5 | 1.5 | 3.0 | 5.0 | 0.2 | 2.7 | 0.8 | 0.4 | 0.3 |
| Biomass(mg/m³) | 173.2 | 27.0 | 62.7 | 66.0 | 2.0 | 116.3 | 21.4 | — | 36.8 |
| Rate of subsample | 1/2 | 1 | 1/2 | 1/2 | 1 | — | — | — | — |
| No. of total organisms | 418 | 506 | 413 | 524 | 75 | — | — | — | — |
| No. of total the other organisms | — | — | — | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | | | | |
| Calanus | 103 | 97 | 76 | 122 | 17 | | | | |
| Paracalanus | 19 | 31 | 5 | 26 | 5 | | | | |
| Euchaeta | | | | | | | | | |
| Clausocalanus | | | | | | | | | |
| Pseudocalanus | 1 | | | | | | | | |
| Centropages | 13 | 18 | 3 | 5 | 3 | | | | |
| Metridia | | 2 | | | | | | | |
| Labidocera | 1 | | | | | | | | |
| Acartia | 21 | 29 | 14 | 19 | 7 | | | | |
| Tortanus | | | | | | | | | |
| Oithona | 54 | 86 | 72 | 129 | 22 | | | | |
| Setella | | | | 1 | 6 | | | | |
| Corycaeus | 18 | 31 | 36 | 37 | 7 | | | | |
| Copepoda larva | | 1 | | | | | | | |
| Penilia | | | | | | | | | |
| Evadne | | | | | | | | | |
| Oikopleura | | 4 | 1 | 1 | | | | | |
| Polychaeta | | | | | | | | | |
| Shell larva | 9 | 21 | 35 | 7 | | | | | |
| Amphipoda | 2 | 6 | 1 | 3 | | | | | |
| Euphausia | 7 | 8 | 7 | | | | | | |
| Decapoda | | | | | | | | | |
| Lucifer | | | | | | | | | |
| Fritillaria | | | | | | | | | |
| Brachyura | | | | | | | | | |
| Pteropoda | 1 | 7 | 16 | | | | | | |
| Salpa | | | | | | | | | |
| Sagitta | 138 | 129 | 102 | 150 | | | | | |
| Coelenterata | | | | 1 | | | | | |
| Doliolum | | | | | | | | | |
| Megalopa larva | | | | | | | | | |
| Ophiopluteus | 6 | 8 | 20 | 6 | | | | | |
| Fish larva | 1 | 3 | 3 | | | | | | |
| Fish egg | | | | | | | | | |
| Pelagic egg | 4 | 10 | 12 | | | | | | |

| June | | | | Aug | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 05 | 06 | 07 | 09 | 01 | 03 | 04 | 05 | 07 | 09 |
| 24 | 24 | 24 | 24 | 19 | 19 | 19 | 19 | 19 | 19 |
| 1145 | 1230 | 1515 | 1845 | 1025 | 1250 | 1505 | 1520 | 1735 | 2015 |
| 30 | 30 | 30 | 30 | 25 | 35 | 50 | 50 | 50 | 50 |
| 0.1 | 0.05 | 0.09 | 0.05 | 1.0 | 1.0 | 0.1 | 0.1 | 6.0 | 1.5 |
| 6.5 | 3.4 | 4.6 | 4.2 | 47.6 | 37.6 | 12.6 | 19.6 | 45.0 | 29.4 |
| — | — | — | — | 1/4 | 1/4 | 1 | 1/4 | 1/32 | 1/8 |
| — | — | — | — | 329 | 351 | 42 | 332 | 529 | 433 |
| — | — | — | — | — | — | — | — | — | — |
| | | | | 28 | 1 | | 1 | 1 | 129 |
| | | | | 127 | 99 | 14 | 60 | 50 | 37 |
| | | | | 9 | 1 | | | | 2 |
| | | | | 1 | | | | | |
| | | | | 13 | | | | | |
| | | | | 1 | 18 | 1 | | | |
| | | | | 9 | 3 | 5 | 14 | 16 | 20 |
| | | | | 1 | | | | | |
| | | | | 10 | 2 | 2 | 1 | 17 | 9 |
| | | | | | | 1 | | | |
| | | | | 40 | 89 | 8 | 46 | 11 | 11 |
| | | | | | | | 1 | | |
| | | | | 1 | 18 | 2 | 113 | 260 | 152 |
| | | | | 17 | 6 | 7 | 32 | 122 | 39 |
| | | | | 20 | 2 | | 1 | 5 | 5 |
| | | | | 1 | 1 | | | | |
| | | | | 5 | 16 | | 7 | | |
| | | | | | 6 | | 3 | | 1 |
| | | | | 15 | 22 | | 5 | 3 | |
| | | | | | 1 | | | | |
| | | | | | 1 | | | | |
| | | | | 2 | | 1 | 1 | 13 | 17 |
| | | | | 8 | 3 | | 8 | | |
| | | | | 3 | 1 | | 1 | | |
| | | | | | 14 | | 8 | 1 | |
| | | | | 6 | 16 | 1 | 12 | 16 | 6 |
| | | | | 8 | | | | 1 | 3 |
| | | | | | 18 | | 16 | 2 | 2 |
| | | | | | 1 | | | | |
| | | | | | 1 | | 1 | 7 | |
| | | | | | 2 | | 1 | 5 | |
| | | | | 4 | 9 | | | | |

| October | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| 0940 | 1119 | 1245 | 1400 | 1525 | 1650 | 1820 | 1920 | 2115 | 2230 |
| 20 | 30 | 35 | 30 | 40 | 50 | 50 | 50 | 50 | 50 |
| 3.0 | 3.8 | 4.4 | 0.9 | 1.0 | 0.8 | 0.1 | 0.1 | 0.3 | 0.1 |
| 67.3 | 128.6 | 245.9 | 29.4 | 30.3 | 9.7 | 5.7 | 6.3 | 5.0 | 11.0 |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

| December | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 18 | 18 | 18 | 18 | 18 | 13 | 18 | 18 | 18 | 18 |
| 0850 | 1029 | 1105 | 1229 | 1420 | 1600 | 1759 | 1917 | 2056 | 2239 |
| 25 | 42 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 1.0 | 1.0 | 2.2 | 2.4 | 0.4 | 0.2 | 0.6 | 0.4 | 0.3 | 0.4 |
| 94.2 | 39.9 | 61.9 | 83.0 | 12.7 | 6.3 | 11.5 | 18.6 | 7.0 | 23.8 |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

# 308선 부유생물조사표

## Plankton Data, Line 308

| Month | Mar | | | | |
|---|---|---|---|---|---|
| Station | 01 | 03 | 05 | 07 | 09 |
| Date | 7 | 8 | 8 | 8 | 8 |
| Time | 1600 | 0645 | 0925 | 1208 | 1458 |
| Collected depth(m) | 20 | 40 | 50 | 60 | 75 |
| Volume(cc) | 0.5 | 1.5 | 2.5 | 0.5 | 4.0 |
| Biomass(mg/m³) | 29.9 | 22.8 | 86.2 | 7.3 | 57.5 |
| Rate of subsample | 1 | 1 | 1/8 | 1 | 1/4 |
| No. of total organisms | 160 | 270 | 802 | 46 | 388 |
| No. of total the other organisms | — | — | — | — | — |
| ZOOPLANKTON | | | | | |
| Calanus | 42 | 31 | 63 | 14 | 62 |
| Paracalanus | 27 | 24 | 136 | | 31 |
| Centropages | | 4 | 13 | | 14 |
| Acartia | 20 | 27 | 9 | 3 | 27 |
| Oithona | 11 | 9 | 125 | 4 | 79 |
| Setella | 4 | 6 | 72 | | |
| Clytemnestra | 1 | | | | |
| Sapphirina | | 1 | | | |
| Corycaeus | 14 | 25 | 119 | 5 | 81 |
| Copepoda larva | | | 158 | | 1 |
| Oikopleura | | | | | |
| Polychaeta | 1 | | 56 | | 1 |
| Shell larva | 1 | 2 | 7 | | 1 |
| Amphipoda | | | 1 | | |
| Euphausia | 5 | | 1 | | 5 |
| Fritillaria | | | | | |
| Ophiopluteus | 1 | 1 | | | 1 |
| Pteropoda | | 2 | 9 | | 2 |
| Sagitta | 33 | 138 | 15 | 20 | 79 |
| Fish larva | | | | | 3 |
| Pelagic egg | | 1 | 18 | | 1 |

| May | | June | | | | |
|---|---|---|---|---|---|---|
| 01 | 02 | 05 | 06 | 07 | 08 | 09 |
| 2 | 2 | 25 | 25 | 25 | 25 | 24 |
| 1015 | 1220 | 0625 | 0430 | 0245 | 0100 | 2315 |
| 20 | 25 | 30 | 30 | 30 | 30 | 30 |
| 1.2 | 0.5 | 0.5 | 0.1 | 0.1 | 0.05 | 0.1 |
| 103.8 | 71.5 | 19.1 | 8.4 | 7.4 | 4.2 | 4.6 |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |
| — | — | — | — | — | — | — |

| Month | Aug | | | | | | |
|---|---|---|---|---|---|---|---|
| Station | 01 | 02 | 04 | 06 | 07 | 08 | 10 |
| Date | 20 | 20 | 20 | 20 | 20 | 20 | 19 |
| Time | 1130 | 1015 | 0720 | 0440 | 0325 | 0155 | 2315 |
| Collected depth(m) | 20 | 30 | 45 | 50 | 50 | 50 | 50 |
| Volume(cc) | 0.1 | 0.2 | 1.0 | 0.1 | 0.1 | 2.0 | 5.0 |
| Biomass(mg/m$^3$) | 14.8 | 4.2 | 14.3 | 2.6 | 2.8 | 40.5 | 107.8 |
| Rate of subsample | 1/2 | 1 | 1/4 | 1 | 1 | 1/8 | 1/32 |
| No. of total organisms | 399 | 313 | 341 | 293 | 343 | 484 | 594 |
| No. of total the other organisms | — | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | | |
| Calanus | | 1 | 9 | 1 | 4 | 12 | 100 |
| Paracalanus | 90 | 146 | 91 | 58 | 51 | 104 | 85 |
| Clausocalanus | | | | 1 | 1 | 1 | |
| Euchaeta | | | 1 | | 1 | 2 | |
| Centropages | 12 | 4 | 2 | | | | 1 |
| Labidocera | 21 | 5 | | 1 | | | |
| Acartia | 13 | 9 | 35 | 37 | 54 | 21 | 36 |
| Tortanus | 18 | 3 | | | | | |
| Oithona | 6 | 14 | 8 | 22 | 27 | 20 | 20 |
| Setella | | 3 | 6 | | | 1 | |
| Clytemnestra | | 1 | | | | | |
| Corycaeus | 119 | 36 | 34 | 15 | 13 | 15 | 11 |
| Copepoda larva | | | 1 | 1 | | | 3 |
| Oikopleura | 4 | 7 | 8 | 3 | 7 | 8 | |
| Podon | | | 14 | 6 | 6 | 19 | 8 |
| Penilia | | | 12 | 43 | 78 | 163 | 204 |
| Evadne | 4 | 20 | 46 | 18 | 12 | 65 | 69 |
| Polychaeta | 3 | 1 | | 2 | | 1 | |
| Shell larva | 9 | 1 | | 3 | | | |
| Amphipoda | 2 | 1 | 4 | 2 | | 3 | 2 |
| Euphausia | 36 | 7 | 4 | 2 | 6 | 4 | 2 |
| Lucifer | | | | 1 | | | |
| Muggiaea | 1 | 8 | | | | | |
| Fritillaria | 11 | 15 | 28 | 1 | 1 | 10 | 2 |
| Ophiopluteus | | 1 | | | | | |
| Balanus larva | | 1 | | | | | |
| Brachyura | 29 | 7 | 1 | | | | |
| Pteropoda | 10 | 4 | 3 | 3 | 1 | | |
| Salpa | | 3 | 3 | 10 | 10 | | |
| Sagitta | 4 | 4 | 7 | 20 | 29 | 10 | 51 |
| Coelenterata | 2 | 1 | | | 2 | 1 | |
| Doliolum | | 7 | 19 | 40 | 36 | 14 | |
| Fish larva | | | | | | 4 | 1 |
| Fish egg | 3 | 2 | | 1 | 2 | 4 | |
| Pelagic egg | 2 | 1 | 5 | 2 | 2 | 2 | |

October

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 1430 | 1310 | 1150 | 1230 | 0910 | 0750 | 0624 | 0505 | 0333 | 0210 |
| 18 | 20 | 40 | 40 | 30 | 50 | 50 | 50 | 50 | 50 |
| 0.5 | 1.3 | 1.0 | 1.0 | 0.2 | 6.8 | 1.0 | 0.2 | 0.9 | 1.2 |
| [illegible] | 278.3 | 124.6 | 123.0 | 1.6 | 257.8 | 10.8 | 11.3 | 6.8 | 101.0 |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

December

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 1602 | 1432 | 1251 | 1122 | 0945 | 0810 | 0532 | 0410 | 0313 | 0130 |
| 20 | 28 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 0.4 | 0.2 | 1.8 | 0.2 | 0.2 | 0.2 | 0.1 | 1.1 | 1.1 | 1.4 |
| 19.2 | 11.2 | 42.8 | 5.0 | 6.9 | 7.8 | 9.8 | 7.0 | 38.6 | 22.4 |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — |

# 307선 부유생물조사표

## Plankton Data, Line 307

| Month | Mar | | | | Aug | | |
|---|---|---|---|---|---|---|---|
| Station | 03 | 05 | 07 | 09 | 03 | 05 | 07 |
| Date | 7 | 8 | 8 | 8 | 20 | 20 | 20 |
| Time | 0328 | 2400 | 2120 | 1850 | 1625 | 1940 | 2220.0 |
| Collected depth(m) | 30 | 50 | 50 | 60 | 35 | 45 | 50 |
| Volume(cc) | 0.3 | 1.3 | 3.0 | 5.0 | 4.0 | 10.5 | 7.0 |
| Biomass(mg/m³) | 10.5 | 21.4 | 71.1 | 78.1 | 65.7 | 216.6 | 972.0 |
| Rate of subsample | 1/4 | 1/4 | 1/8 | 1/16 | 1/8 | 1/16 | 1/16 |
| No. of total organisms | 171 | 157 | 284 | 288 | 581 | 368 | 373 |
| No. of total the other organisms | — | — | — | — | — | — | — |
| ZOOPLANKTON | | | | | | | |
| Calanus | 59 | 44 | 142 | 87 | 14 | 50 | 38 |
| Paracalanus | 7 | 22 | 16 | 18 | 210 | 105 | 93 |
| Centropages | 53 | 9 | 19 | 34 | | | 1 |
| Tachaeta | | | | | | 2 | |
| Mecynocera | | | | | | 1 | |
| Metridia | 1 | | | | | | |
| Labidocera | 4 | | | | 142 | 107 | 1 |
| Acartia | 29 | 12 | 15 | 13 | 29 | 1 | 12 |
| Tortanus | | | | | 10 | | |
| Oithona | 6 | 8 | 24 | 28 | 9 | 2 | 15 |
| Setella | 2 | 4 | 1 | | | | |
| Corycaeus | 6 | 8 | 29 | 32 | 63 | 23 | 26 |
| Copepoda larva | | | 1 | | 2 | | 1 |
| Oikopleura | | | | 2 | 1 | | 9 |
| Penilia | | | | | | | 66 |
| Evadne | | | 5 | | 8 | 1 | 15 |
| Conchoecia | | | | | 1 | | |
| Podon | | | | | | | 21 |
| Shell larva | | | 1 | 3 | | 23 | 5 |
| Ophiopluteus | 3 | | | | | | 2 |
| Amphipoda | | | 2 | 2 | 2 | | 8 |
| Euphausia | 1 | 2 | | 10 | 35 | 7 | 2 |
| Decapoda | | | | | 5 | | |
| Fritillaria | | | | | 2 | | 4 |
| Brachyura | | | | | 24 | 8 | 10 |
| Pteropoda | | | 1 | 2 | 1 | 6 | |
| Salpa | | | | | | 3 | |
| Coelenterata | | | | | | | 3 |
| Doliolum | | | | | 1 | 2 | 1 |
| Amoeba | | | | | 2 | | |
| Cirripedia | | | | | | | 1 |
| Megalopa larva | | | | | | | 7 |
| Polychaeta | | 1 | 2 | 1 | | | |
| Obelia | | | | 28 | | | |
| Sagitta | 7 | 40 | 24 | 21 | | | |
| Fish larva | | | 1 | 1 | | 1 | 10 |
| Fish egg | | | | | | | 6 |
| Pelagic egg | 1 | | 1 | 6 | | 26 | 16 |

| October | | | | | | | |
|---|---|---|---|---|---|---|---|
| 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 27 | 27 | 27 | 27 | 27 | 26 | 26 | 26 |
| 0545 | 0420 | 0255 | 0130 | 0005 | 2240 | 2115 | 2000 |
| 30 | 30 | 50 | 50 | 30 | 50 | 50 | 50 |
| 0. 4 | 1. 8 | 2. 0 | 2. 5 | 1. 5 | 1. 7 | 0. 3 | 2. 0 |
| 15. 7 | 163. 4 | 129. 2 | 78. 6 | 68. 6 | 31. 5 | 14. 1 | 83. 9 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

| December | | | | | | | |
|---|---|---|---|---|---|---|---|
| 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 21 | 21 | 22 | 22 | 22 | 22 | 22 | 22 |
| 1655 | 1919 | 0817 | 0952 | 1130 | 1311 | 1450 | 1631 |
| 35 | 30 | 50 | 50 | 50 | 50 | 50 | 50 |
| 0. 1 | 0. 1 | 0. 5 | 0. 2 | 0. 1 | 0. 1 | 1. 0 | 0. 1 |
| 7. 2 | 14. 5 | 8. 8 | 5. 3 | 5. 9 | 4. 8 | 26. 0 | 3. 5 |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — |

# 306선 부유생물조사표

## Plankton Data, Line 306

| Month | Mar | | | |
|---|---|---|---|---|
| Station | 02 | 03 | 05 | 07 |
| Date | 9 | 9 | 9 | 9 |
| Time | 1822 | 1900 | 0750 | 1040 |
| Collected depth(m) | 20 | 10 | 40 | 50 |
| Volume(cc) | 0.2 | 1.5 | 2.5 | 1.0 |
| Biomass(mg/m$^3$) | 15.7 | 202.5 | 59.0 | 9.4 |
| Rate of subsample | 1 | 1/4 | 1 | 1/4 |
| No. of total organisms | 435 | 124 | 78 | 239 |
| No. of total the other organisms | — | — | — | — |
| ZOOPLANKTON | | | | |
| Calanus | 134 | 30 | 26 | 68 |
| Paracalanus | 30 | 8 | 17 | 23 |
| Centropages | 68 | 27 | 3 | 4 |
| Metridia | | 2 | | |
| Labidocera | 24 | 5 | | 7 |
| Acartia | 124 | 34 | 16 | 88 |
| Oithona | 5 | 2 | 3 | 4 |
| Oncaea | | | 1 | |
| Corycaeus | 23 | 2 | 6 | 7 |
| Ophiopluteus | | 1 | | |
| Euphausia | 5 | 2 | | 2 |
| Obelia | | | 3 | |
| Pteropoda | | | 1 | |
| Sagitta | 22 | 11 | 2 | 36 |

| May | | | | June | | | |
|---|---|---|---|---|---|---|---|
| 02 | 03 | 06 | 07 | 04 | 05 | 06 | 08 |
| 3 | 3 | 4 | 4 | 27 | 27 | 27 | 27 |
| 1720 | 1930 | 0200 | 0410 | 0925 | 1105 | 1250 | 1613 |
| 25 | 10 | 30 | 30 | 30 | 30 | 30 | 30 |
| 2.6 | 0.9 | 0.5 | 1.0 | 3.2 | 1.0 | 0.9 | 0.1 |
| 172.3 | 120.1 | — | 10.5 | 117.7 | 47.5 | 31.3 | 14.5 |
| — | — | | | — | — | — | — |
| — | | | | — | — | — | — |
| — | — | — | — | — | — | — | — |

| October | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 0612 | 0737 | 0858 | 1010 | 1138 | 1300 | 1423 | 1550 | 1710 |
| 25 | 14 | 16 | 30 | 40 | 50 | 55 | 62 | 65 |
| 4.0 | 2.0 | 3.0 | 1.0 | 1.0 | 0.5 | 0.4 | 0.1 | 0.1 |
| 260 | 168.1 | 355.6 | 63.6 | 113.0 | 12.7 | 11.1 | 9.7 | 8.7 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

| December | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 |
| 1330 | 1501 | 1630 | 1801 | 0210 | 0031 | 2250 | 2120 | 1930 |
| 20 | 10 | 17 | 40 | 50 | 50 | 50 | 50 | 50 |
| 0.7 | 0.4 | 0.8 | 1.8 | 0.6 | 0.4 | 2.0 | 1.0 | 2.4 |
| 65.1 | 70.4 | 80.4 | 70.8 | 19.8 | 15.2 | 61.6 | 46.4 | 87.7 |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |

# 제 6 편

# 특별 해양 관측 성적

△

# PART 6

# MISCELLANEOUS OCEANOGRAPHIC OBSERVATIONS

1967

# 차 례

1. 동해 해양조사성적 ····· 595
동해 해양관측점 위치표 ····· 597
동해 해양관측점 위치도 ····· 598
A, H선 (공치어장조사) 해양관측 성적 ····· 600
B, K선 (독도서장조사) 해양관측 성적 ····· 601
C, C선 (오징어, 공치어장조사) 해양관측 성적 ····· 602
D, N선 (고등어, 전갱이어장조사) 해양관측 성적 ····· 603
E, U선 (갈치어장조사) 해양관측 성적 ····· 606
F, L선 (미시마 근해 어장조사) 해양관측 성적 ····· 610
2. 남해 해양조사성적 ····· 611
남해 해양관측점 위치표 ····· 613
남해 해양관측점 위치도 ····· 614
A, A선 (전갱이, 고등어어장조사) 해양관측 성적 ····· 615
B, S선 (제주부근 어장조사) 해양관측 성적 ····· 617
3. 서해 해양조사성적 ····· 619
서해 해양관측점 위치표 ····· 621
서해 해양관측점 위치도 ····· 622
A, P선 (전갱이, 고등어어장조사) 해양관측 성적 ····· 623
B, Y선 (연평도 조기어장조사) 해양관측 성적 ····· 625
4. 남태평양 해양조사성적 ····· 637
남태평양 해양관측 위치표 ····· 639
남태평양 해양관측 위치도 ····· 640
남태평양 해양관측 성적 ····· 641
5. 남지나해 해양조사성적 ····· 653
남지나해 해양관측점 위치표 ····· 655
남지나해 해양관측점 위치도 ····· 656
남지나해 해양관측 성적 ····· 657

# CONTONTS

1. Oceanographic Observations, Eastern Waters ····595
Position of the Eastern Waters ····597
Location of the Eastern Waters····598
A. Oceanographic Data, Line H···· 600
B. Oceanographic Data, Line K····601
C. Oceanographic Data, Line C ····602
D. Oceanographic Data, Line N····603
E. Oceanographic Data, Line U····606
F. Oceanographic Data, Line L····610
2. Oceanographic Observations, Southern Waters ····611
Position of the Southern Waters ····613
Location of the Southern Waters ····614
A. Oceanographic Data, Line A····615
B. Oceanographic Data, Line S····617
3. Oceanographic Observations, Western Waters ····619
Position of the Western Waters ····621
Location of the Western Waters ····622
A. Oceanographic Data, Line P····623
B. Oceanographic Data, Line Y ····625
4. Oceanographic Observations, South Pacific Waters ····637
Position of the South 'Pacific Waters····639
Location of the South Pacific Waters····640
Oceanographic Data, Line, South Pacific Waters ····641
5. Oceanographic Observations, South China Waters····653
Position of theSouth China Waters ····· ····· 655
Location of the South China Waters ····656
Oceanographic Observations South China Waters ····· ····657

# 동 해 해 양 조 사 성 적

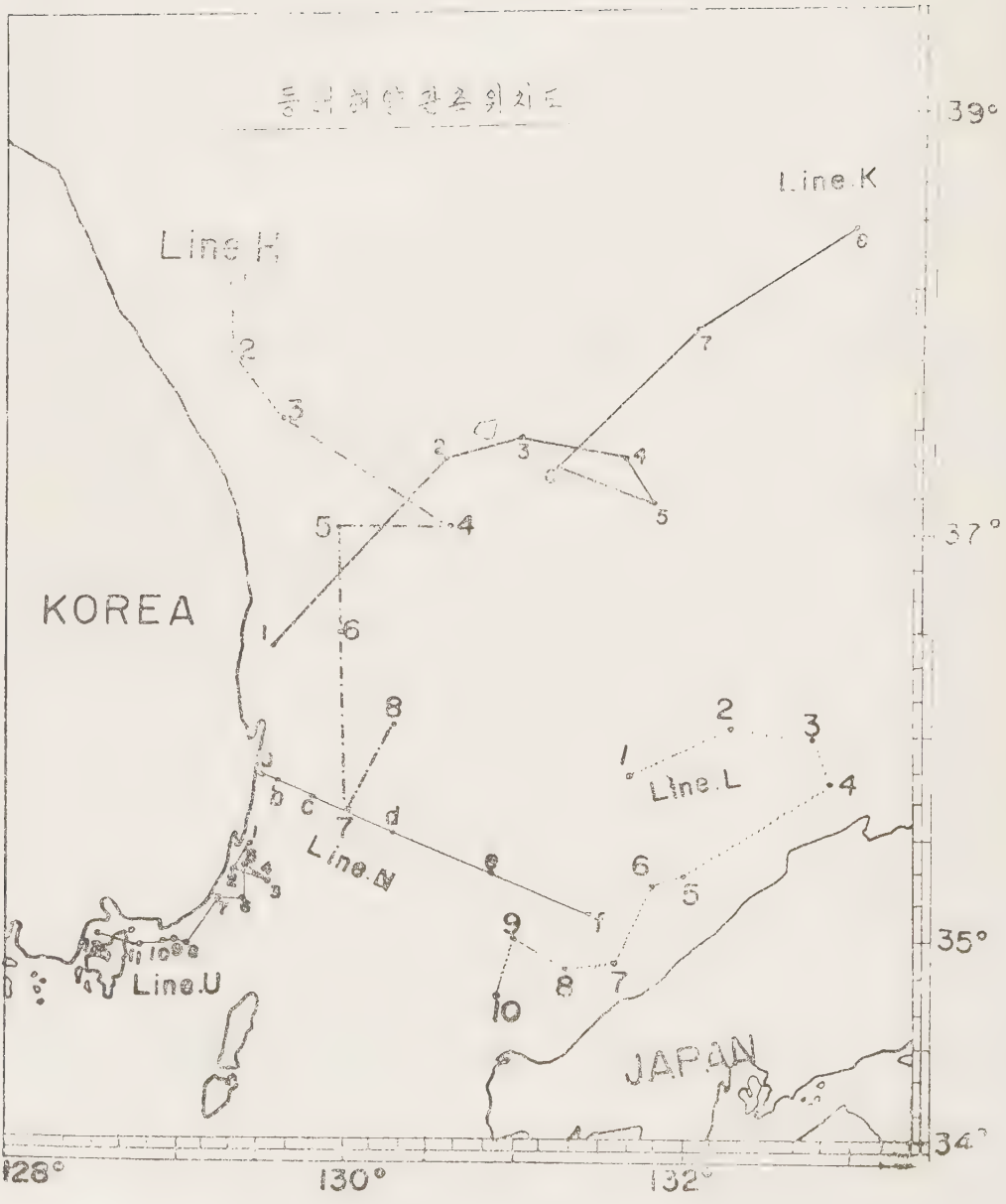
# OCEANOGRAPHIC OBSERVATIONS EASTERN WATERS

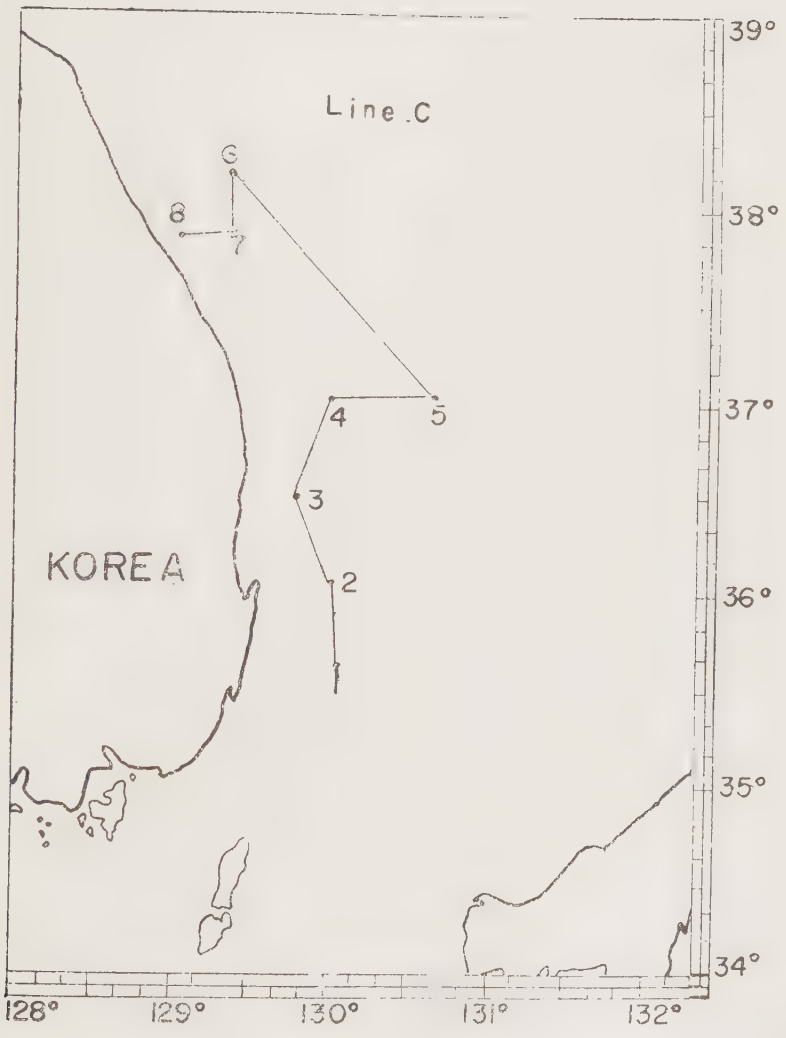
1 9 6 7

# 동해 해양 관측점 위치표

## Station Positions Eastern Coast

| Line | St No. | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
|---|---|---|---|---|---|---|---|---|
| H 명치해상조사선 | | 38° 12′ 6″<br>129° 22′ 3″ | 37° 53′ 7″<br>129° 22′ 1″ | 37° 33′ 2″<br>129° 41′ 3″ | 37° 03′ 4″<br>130° 37′ 6″ | 37° 03′ 4″<br>130° 00′ 0″ | 36° 30′ 3″<br>129° 47′ 3″ | 35° 36′ 8″<br>130° 00′ 3″ |
| | 08 | | | | | | | |
| | | 35° 04′ 6″<br>130° 18′ 4″ | | | | | | |
| K 독도어장조사선 | | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
| | | 36° 24′<br>129° 38′ | 37° 22′<br>130° 39′ | 37° 29′<br>131° 06′ | 37° 20′<br>131° 38′ | 37° 9′ 45″<br>131° 52′ 20″ | 37° 18′<br>131° 18′ | 37° 59′<br>132° 04′ |
| | 08 | | | | | | | |
| | | 38° 28′<br>133° 02′ | | | | | | |
| C 오징어 명치어장조사선 | | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
| | | 35° 36′ 8″<br>130° 00′ 3″ | 36° 04′ 6″<br>130° 00′ 0″ | 36° 30′ 3″<br>129° 47′ 3″ | 36° 30′ 3″<br>130° 00′ 0″ | 37° 03′ 4″<br>130° 37′ 6″ | 38° 12′ 6″<br>129° 22′ 3″ | 37° 53′ 7″<br>129° 22′ 1″ |
| | 08 | | | | | | | |
| | | 37° 53′ 7″<br>129° 03′ 8″ | | | | | | |
| N 고등어 전갱이 어장조사선 | | a | b | c | d | e | f | |
| | | 35° 47′ 3″<br>129° 32′ 8″ | 35° 43′ 4″<br>129° 38′ 4″ | 35° 41′ 3″<br>129° 49′ 0″ | 35° 39′ 6″<br>130° 16′ 9″ | 35° 17′ 8″<br>130° 50′ 0″ | 35° 05′ 3″<br>131° 22′ 6″ | |
| U 멸치어장조사선 | | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
| | | 35° 29′<br>129° 32′ | 35° 22′<br>129° 27′ | 35° 24′<br>129° 34′ | 35° 17′<br>129° 29′ | 35° 18′<br>129° 23′ | 35° 12′<br>129° 25′ | 35° 12′<br>129° 16′ |
| | 03 | 09 | 10 | 11 | 12 | | | |
| | 34° 58′<br>129° 06′ | 35° 1′ 30″<br>129° 00′ 45″ | 35° 00′<br>128° 55′ | 34° 56′ 30″<br>128° 49′ 40″ | 35° 00′<br>128° 33′ | | | |
| L 미시마근해어장조사선 | | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
| | | 35° 43′ 60″<br>131° 43′ 00″ | 36° 03′<br>132° 20′ | 35° 58′<br>132° 49′ | 35° 42′<br>132° 55′ | 35° 16′<br>132° 06′ | 35° 13′<br>131° 52′ | 34° 52′ 0″<br>131° 36′ 5″ |
| | 08 | 09 | 10 | | | | | |
| | 34° 52′<br>131° 21′ | 35° 01′<br>131° 08′ | 34° 45′<br>130° 54′ 0″ | | | | | |


동해해양관측위치도
Line.K
Line.H
KOREA
Line.L
Line.N
Line.U
JAPAN
39°
37°
35°
34°
128°
130°
132°


Line C
6
8
7
4
5
3
2
KOREA
39°
38°
37°
36°
35°
34°
128°
129°
130°
131°
132°

# H선 해 양 관 측 성 적

## Oceanographic Data Line H

| Month | | 6월 (계 림 호) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Day | | 2 | 3 | 6 | 7 | 7 | 7 | 11 | 11 |
| Item | Time / Z(m) | 1430 | 1830 | 1430 | 0710 | 1310 | 1020 | 1050 | 1650 |
| T ℃ | 0 | 16.50 | 17.60 | 20.70 | 19.40 | 19.00 | 18.80 | 18.90 | 19.30 |
| | 10 | 16.39 | 16.20 | 16.07 | 19.33 | 18.10 | 18.88 | 18.71 | 18.98 |
| | 20 | 12.46 | 11.20 | 15.16 | 18.25 | 15.01 | 16.37 | 18.28 | 17.54 |
| | 30 | 8.87 | 9.16 | 14.40 | 17.55 | 13.80 | 14.70 | 15.71 | 15.99 |
| | 50 | 7.33 | 11.27 | 13.04 | 15.32 | 13.42 | 6.76 | 14.27 | 13.26 |
| | 75 | 5.30 | 9.20 | 8.00 | 17.49 | 12.26 | 2.41 | 13.05 | 11.28 |
| | 100 | 7.33 | 5.25 | 5.21 | 12.10 | 9.28 | 2.28 | 10.97 | 10.80 |
| | 125 | — | — | — | — | — | — | — | — |
| | 150 | 3.81 | 1.95 | 1.80 | 7.25 | 2.40 | 1.68 | 7.31 | 9.25 |
| | 200 | 2.24 | 1.17 | 2.12 | 2.86 | 1.46 | 1.71 | 2.87 | 4.72 |
| S ‰ | 0 | | | | | | | | |
| | 10 | | | | | | | | |
| | 20 | | | | | | | | |
| | 30 | | | | | | | | |
| | 50 | | | | | | | | |
| | 75 | | | | | | | | |
| | 100 | | | | | | | | |
| | 125 | | | | | | | | |
| | 150 | | | | | | | | |
| | 200 | | | | | | | | |
| Depth(m) | | 1080 | 1120 | 810 | 2340 | 1050 | 235 | 250 | 1530 |
| Water Trans. | | 18 | 16 | 10 | 14 | 14 | 18 | 18 | 15 |
| Water Color | | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 |
| Wave | | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 1 |
| Swell | | 0.5 | 0.5 | 0.5 | 1.5 | 1.5 | 4 | 0.5 | 2 |
| Air Temp. (°C) | | 20.5 | 18.5 | 19.7 | 19.1 | 18.7 | 18.7 | 20.5 | 22.5 |
| Baro. (mb) | | 1020 | 1021 | 1006 | 1010 | 1012 | 1008 | 1012 | 1009 |
| Wind | | NE 7 | N 7 | NE 7 | NE 10 | NE 10 | N 7 | SW 5 | SW 5 |
| Cloud | | 10 | 10 | 10 | 1 | 1 | 1 | 10 | 1 |
| Weather | | C | C | C | B | B | B | C | B |

# K선 해 양 관 측 성 적

## Oceanographic Data, Line K

| Month | | 8월 (대백산호) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Day | | 12 | 13 | 14 | 14 | 15 | 16 | 18 | 18 |
| Item | Time / Z(m) | 1735 | 1900 | 1465 | 2125 | 2050 | 2040 | 1055 | 1720 |
| T ℃ | 0 | 25.48 | 27.72 | 27.91 | 27.65 | 27.44 | 27.73 | 27.22 | 28.16 |
| | 10 | 24.80 | 22.55 | 22.96 | 23.19 | 27.21 | 23.20 | 26.92 | 27.26 |
| | 20 | 13.32 | 17.16 | 19.70 | 17.08 | 20.43 | 19.44 | 17.16 | 19.63 |
| | 30 | 12.65 | 15.45 | 15.25 | 16.01 | 15.23 | 16.05 | 12.63 | 13.93 |
| | 50 | 9.41 | 13.69 | 12.89 | 14.72 | 13.61 | 14.18 | 6.97 | 7.97 |
| | 75 | 5.15 | 11.90 | 11.13 | 14.30 | 10.13 | 11.72 | 4.66 | 4.94 |
| | 100 | 3.60 | 10.96 | 10.78 | 11.90 | 7.51 | 10.94 | 3.13 | 3.25 |
| | 125 | — | — | — | — | — | — | — | — |
| | 150 | — | — | — | — | — | — | — | — |
| | 200 | — | 9.97 | 9.90 | 1.67 | 1.61 | 7.77 | 1.29 | 1.31 |
| | 250 | — | — | — | — | — | — | — | — |
| | 300 | — | 3.02 | 2.51 | 0.87 | 0.77 | 1.68 | 0.57 | 0.73 |
| S ‰ | 0 | 34.29 | 34.21 | 34.31 | 33.56 | 33.34 | 34.26 | 33.57 | 34.06 |
| | 10 | 34.29 | 34.36 | 34.37 | 33.99 | 33.31 | 34.50 | 33.57 | 34.07 |
| | 20 | 34.58 | — | 34.48 | 34.50 | 33.80 | 34.67 | 34.12 | 34.30 |
| | 30 | 34.58 | 34.57 | 34.61 | 34.46 | 34.35 | 34.64 | 34.45 | 34.47 |
| | 50 | 34.48 | 34.62 | 34.61 | 34.60 | 34.63 | 34.83 | 34.43 | 34.42 |
| | 75 | 34.29 | 34.58 | 34.52 | 33.91 | 34.28 | 34.70 | 34.34 | 34.34 |
| | 100 | 34.22 | 34.50 | 34.49 | 34.56 | 34.36 | 34.65 | 34.32 | 34.31 |
| | 125 | — | — | — | — | — | — | — | — |
| | 150 | — | — | — | — | — | — | — | — |
| | 200 | — | 34.59 | 34.44 | 34.18 | 34.21 | 34.46 | 34.31 | 34.31 |
| | 250 | — | — | — | — | — | — | — | — |
| | 300 | — | 34.19 | 34.18 | 34.20 | 33.94 | — | 34.32 | 34.32 |
| Depth(m) | | 116 | 2210 | 1499 | 2160 | 775 | 2310 | — | — |
| Water Trans. | | 14 | — | 22 | | — | — | — | — |
| Water Color | | — | — | — | — | — | — | — | — |
| Wave | | S 2 | — | W 2 | W 2 | SW 1 | S 2 | — | — |
| Swell | | S 1 | NW 1 | SW 2 | SW 2 | SW 2 | S 3 | NE 1 | NE 1 |
| AirTemp. (°C) | | 25.84 | 26.7 | 29.1 | 27.4 | 27.2 | 26.6 | 27.9 | 27.6 |
| Baro. (mb) | | 1002 | 1003 | — | — | — | — | — | — |
| Wind | | SE 2 | NW 1 | SW 2 | SW 2 | SW 1 | S 2 | NE 1 | NNE 1 |
| Cloud | | As 9 | Ns 7 | Ns 10 | Ns 10 | St 5 | As 2 | Ci 8 | Ci 6 |
| Weather | | C | BC | C | C | BC | B | C | BC |

# C선 해 양 관 측 성 적

## Oceanographic Data, Line C

| Month | | 9월 (천 마 산호) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Day | | | 25 | 26 | 27 | 27 | 29 | 29 | 29 |
| Item | Time / Z(m) | 2130 | 1730 | 1740 | 1800 | 2000 | 1215 | 1430 | 1830 |
| T ℃ | 0 | 23.20 | 21.20 | 21.90 | 21.30 | 20.40 | 19.90 | 19.80 | 19.70 |
| | 10 | 22.80 | 22.40 | 20.70 | 20.50 | 22.20 | 20.03 | 19.42 | 20.14 |
| | 20 | 21.20 | 22.10 | 20.20 | 20.40 | 19.90 | 19.78 | 19.44 | 19.21 |
| | 30 | 20.20 | 22.00 | 19.80 | 19.90 | 19.70 | 12.78 | 10.67 | 16.30 |
| | 50 | 17.80 | 19.70 | 17.10 | 17.20 | 18.90 | 9.72 | 7.43 | 10.28 |
| | 75 | — | — | — | — | — | 5.07 | 5.38 | 7.37 |
| | 100 | — | — | — | — | — | 3.91 | 3.97 | 5.85 |
| | 125 | — | — | — | — | — | — | — | — |
| | 150 | — | — | — | — | — | 1.75 | 2.75 | 1.90 |
| | 200 | — | — | — | — | — | 0.67 | 1.38 | 1.05 |
| S ‰ | 0 | | | | | | | | |
| | 10 | | | | | | | | |
| | 20 | | | | | | | | |
| | 30 | | | | | | | | |
| | 50 | | | | | | | | |
| | 75 | | | | | | | | |
| | 100 | | | | | | | | |
| | 125 | | | | | | | | |
| | 150 | | | | | | | | |
| | 200 | | | | | | | | |
| Depth(m) | | — | — | — | — | — | — | — | — |
| Water Trans. | | — | — | — | — | — | — | — | — |
| Water Color | | — | — | — | — | — | 3 | 3 | — |
| wave | | 2 | 2 | — | 0 | 2 | 2 | 2 | — |
| Swell | | 3 | 3 | — | 1 | 2 | 3 | 3 | — |
| Air Temp. (°C) | | 24.2 | 25.2 | — | 17.6 | 17.4 | 22.2 | 24.2 | 22.0 |
| Baro. (mb) | | 1008 | 1006 | | 1015 | 1015 | 1016 | 1016 | 1015 |
| Wind | | SE 2 | SE 3 | | NE 2 | NE 2 | N 4 | NE 5 | NE 3 |
| Cloud | | Ci 8 | Ci 7 | — | St 2 | St 2 | Ci 7 | Ci 7 | Ci 8 |
| Weather | | C | BC | — | B | B | BC | BC | C |

# N선 해 양 관 측 성 적

## Oceanographic Data Line N

11월(November) 백두산(Baek Du San)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| a | 23 | 1030 | 57 | 4 | 20 | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1028 | | | Ac | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.89 | 33.36 | 5.88 | 0.03 | 0 | 7.27 | 8.10 |
| 10 | 15.84 | 33.43 | 5.88 | 0.08 | 0 | 15.99 | 8.15 |
| 20 | 15.84 | — | 5.88 | 0.03 | 0 | 10.91 | 8.30 |
| 30 | 15.85 | 33.38 | 5.77 | 0 | 0 | 16.72 | 7.90 |
| 50 | 15.47 | 33.67 | 5.26 | 0 | 0 | 6.54 | 8.12 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| b | 23 | 1120 | 144 | 4 | 23 | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1028 | 14.2 | | Ac | 2 | B |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 15.87 | 33.44 | 5.79 | — | — | — | 8.25 |
| 19 | 15.83 | 33.44 | 5.88 | 0 | 0 | 6.54 | 8.19 |
| 20 | 15.88 | 33.47 | 5.90 | 0 | 0 | 8.72 | 8.08 |
| 30 | 15.91 | 33.45 | 5.67 | 0 | 0 | 7.27 | 8.06 |
| 50 | 15.66 | 33.63 | 5.26 | 0.03 | 0 | 3.64 | 7.78 |
| 75 | 10.71 | 34.19 | 5.03 | 0.03 | 0 | 18.90 | 7.85 |
| 100 | 5.24 | 34.07 | 5.51 | 0.01 | 0 | 15.99 | 8.25 |
| 140 | 0.60 | 34.01 | 5.38 | 0.28 | 0 | 37.09 | 7.50 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| c | 23 | 1240 | 227 | 4 | 17 | NE 0 | NE 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1027 | 16.3 | | Ac | 7 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.70 | 33.91 | 5.44 | 0.07 | 0 | 5.09 | 8.12 |
| 10 | 16.46 | 33.91 | 5.67 | 0.03 | 0 | 5.09 | 8.25 |
| 20 | 16.60 | 33.94 | 5.88 | 0 | 0 | 5.09 | 8.38 |
| 30 | 16.56 | 33.93 | 5.65 | 0.03 | 0 | 6.54 | 7.95 |
| 50 | 16.45 | 33.92 | 5.67 | 0 | 0 | 1.45 | 8.10 |
| 75 | 14.00 | 34.33 | 4.72 | 0.18 | 0 | 19.63 | 8.10 |
| 100 | 9.69 | 34.21 | 5.79 | 0.21 | 0 | 15.99 | 8.06 |
| 125 | 6.46 | 34.13 | 6.41 | 0.14 | — | 13.81 | 7.85 |
| 150 | 2.89 | 34.01 | 6.62 | 0.32 | — | 27.63 | 7.90 |
| 200 | 0.98 | 34.02 | 5.98 | 0.42 | — | 36.35 | 7.83 |
| 225 | 0.48 | 34.06 | 5.67 | 0.04 | — | 51.62 | 7.65 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| d | 23 | 1700 | 250 | 3 | 11 | | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1026.5 | 16.4 | | Ci | 6 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 16.20 | [illegible] | [illegible] | [illegible] | — | [illegible] | [illegible] |
| 10 | 16.53 | [illegible] | [illegible] | [illegible] | — | [illegible] | [illegible] |
| 20 | 16.60 | 33.93 | 5.75 | 0.07 | — | [illegible] | [illegible] |
| 30 | 16.62 | 33.94 | [illegible] | 0.07 | — | [illegible] | [illegible] |
| 50 | 16.57 | [illegible] | [illegible] | 0 | — | [illegible] | [illegible] |
| 75 | 14.60 | [illegible] | [illegible] | [illegible] | — | [illegible] | [illegible] |
| 100 | 9.36 | [illegible] | [illegible] | [illegible] | — | [illegible] | [illegible] |
| 125 | 5.43 | [illegible] | [illegible] | [illegible] | — | [illegible] | [illegible] |
| 150 | 2.39 | [illegible] | [illegible] | [illegible] | — | [illegible] | [illegible] |
| 200 | 0.91 | [illegible] | [illegible] | [illegible] | — | [illegible] | [illegible] |
| 240 | 0.49 | [illegible] | [illegible] | [illegible] | — | [illegible] | [illegible] |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| e | 23 | 2040 | 135 | | | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1026.9 | 13.5 | | Ac | 4 | Bc |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 17.00 | 33.82 | 5.77 | 0.15 | — | 18.90 | — |
| 10 | 17.21 | 33.82 | 5.67 | 0.14 | — | 12.63 | 8.24 |
| 20 | 17.63 | 33.95 | 5.46 | 0.15 | — | 3.64 | 8.22 |
| 30 | 17.50 | 33.97 | 5.59 | 0.03 | — | 5.09 | 8.23 |
| 50 | 17.14 | 33.95 | 5.77 | 0.07 | — | 3.64 | 8.23 |
| 75 | 16.62 | 33.94 | 5.16 | 0.39 | — | 12.36 | 8.12 |
| 100 | 13.89 | 34.21 | 6.00 | 0.10 | — | 0 | 7.85 |
| 125 | 3.92 | 34.08 | 6.02 | 0.28 | — | 24.72 | 7.78 |
| 132 | 2.53 | 34.04 | 5.96 | 0.64 | — | 14.54 | 7.76 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| f | 24 | 0045 | 105 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

OBSERVED

| Z m | T ℃ | S ‰ | $O_2$ % | $PO_4$-P μg-at/L | $NO_2$-N μg-at/L | $SiO_2$-Si μg-at/L | pH |
|---|---|---|---|---|---|---|---|
| 0 | 19.20 | 34.29 | 5.57 | 0 | — | 3.64 | 8.10 |
| 10 | 19.40 | 34.28 | 5.46 | 0.14 | — | 1.45 | 8.15 |
| 20 | 19.49 | 34.30 | 5.48 | 0.03 | — | 2.18 | 8.17 |
| 30 | 19.52 | 34.30 | 5.41 | 0.03 | — | 0 | 8.25 |
| 50 | 19.52 | 34.29 | 5.59 | 0.03 | — | 0 | 8.19 |
| 75 | 19.32 | 34.24 | 5.41 | 0 | — | 9.45 | 8.09 |
| 100 | 19.57 | — | — | — | — | — | — |

# U선 해 양 관 측 성 적

## Oceanographic Data Line U

| Month | | 10월(장 광 호) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | 07 | 06 | 02 | 01 | 03 | 05 | 07 | 06 | 04 | 01 |
| Day | | 9 | 9 | 10 | 11 | 12 | 21 | 21 | 25 | 29 | 31 |
| Item | Time / Z(m) | 1500 | 1630 | 0740 | 1510 | 1625 | 1000 | 1430 | — | — | — |
| T ℃ | 0 | 22.3 | 22.5 | 22.5 | 20.0 | 21.70 | 20.0 | 20.5 | 21.0 | 20.0 | 19.0 |
| | 10 | 23.1 | 23.0 | 23.5 | 19.5 | 21.5 | 21.3 | 21.7 | 19.5 | 19.0 | 19.0 |
| | 20 | 22.0 | 22.0 | 24.0 | 19.5 | 20.0 | 19.0 | 19.0 | 18.5 | 18.5 | 18.7 |
| | 30 | 21.5 | 21.7 | 24.0 | 20.5 | 20.0 | 18.7 | 19.0 | 18.0 | 18.0 | 18.5 |
| | 50 | 18.5 | 21.1 | 22.0 | 19.0 | 19.0 | 18.3 | 18.5 | 17.0 | 18.0 | 18.0 |
| S ‰ | 0 | 31.53 | — | — | 32.37 | 33.70 | 32.87 | 32.62 | — | 33.57 | 31.27 |
| | 10 | 30.80 | — | 29.96 | 31.71 | 31.76 | — | 32.92 | — | 30.56 | 31.45 |
| | 20 | 30.97 | 30.91 | 30.56 | 32.76 | 31.25 | 32.91 | 32.94 | — | 32.71 | 30.95 |
| | 30 | 30.35 | 30.60 | 31.27 | 32.13 | 32.71 | 32.62 | 32.37 | — | 32.16 | 31.31 |
| | 50 | 30.87 | 30.35 | 31.31 | — | 32.91 | 32.30 | 33.49 | — | 33.71 | 29.86 |
| Depth(m) | | 59 | 63 | — | 51 | 57 | — | — | — | — | — |
| Water Trans. | | — | — | — | — | — | — | — | — | — | — |
| Water Color | | — | — | — | — | — | — | — | — | — | — |
| Wave | | — | — | 3 | 3 | 1 | — | — | — | — | - |
| Swell | | 2 | 3 | 3 | — | 3 | 1 | 1 | — | 4 | 4 |
| Air Temp. (°C) | | 19.0 | 18.5 | 18.3 | 18.7 | 18.5 | 18.2 | 18.5 | — | — | — |
| Baro. (mb) | | — | — | — | — | — | — | — | — | — | — |
| Wind | | 3 | 4 | NW 4 | N 3 | — | SW 2 | SW 2 | — | NE | SE |
| Cloud | | Cu 3 | 3 | 5 | 4 | 10 | Cu 2 | Cu 4 | — | 9 | 2 |
| Weather | | BC | BC | BC | BC | R | B | BC | — | C | B |

11월 (장 광 호)

| 04 | 01 | 05 | 02 | 03 | 01 | 03 | 08 | 01 | 02 | 03 | 04 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 6 | 7 | 13 | 15 | 15 | 22 |
| | | | | | | | | 1510 | 0650 | 1550 | 0610 |
| 20.0 | 19.0 | 18.0 | 17.5 | 17.5 | 17.0 | 18.0 | 18.5 | 17.9 | 16.9 | 17.0 | 17.0 |
| 19.0 | 18.5 | 18.0 | 17.5 | 17.5 | 17.0 | 18.0 | 18.5 | 17.8 | 16.7 | 16.8 | 16.8 |
| 18.5 | 18.7 | 17.5 | 17.0 | 17.0 | 16.5 | 17.9 | — | 17.5 | 16.6 | 16.5 | 16.8 |
| 18.5 | 18.0 | 17.0 | 16.0 | 16.5 | 16.0 | 17.5 | — | 17.0 | 16.5 | 16.5 | 16.6 |
| 17.0 | 17.0 | 16.5 | 16.5 | 16.0 | 16.0 | 17.2 | — | 16.6 | 16.3 | 16.1 | 16.5 |
| 31.12 | 32.89 | 30.86 | 32.69 | 30.95 | 33.09 | — | 31.87 | — | — | — | — |
| 31.31 | 33.34 | 31.51 | 32.33 | 30.68 | 33.07 | — | 29.28 | — | — | — | — |
| 32.79 | 29.34 | 31.27 | 32.09 | 31.11 | 32.97 | 30.57 | 27.51 | — | — | — | — |
| 29.91 | 32.11 | 31.19 | 32.31 | 30.97 | 33.07 | 31.78 | 28.90 | — | — | — | — |
| 29.62 | 31.72 | — | 31.93 | 32.21 | 33.09 | 28.39 | 30.12 | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| 1 | 1 | 2 | 1 | 1 | 3 | 1.5 | 2 | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — |
| NE | NE | NE | NE | NE | NE | NE | NE | — | — | — | — |
| 2 | 9 | 10 | 1 | 6 | 10 | 1 | 2 | — | — | — | — |
| B | C | R | B | BC | C | B | B | — | — | — | — |

| Month | | 11월(장 · 봉 호) | | | | | | | 12월(장·평 호) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 05 | 07 | 12 | 09 | 10 | 11 | 08 | 07 | 02 | 01 | 05 |
| Day | | 22 | 23 | 26 | 29 | 29 | 29 | 29 | 29 | 30 | 1 | 2 |
| Item | Time / Z(m) | 1150 | 0710 | 1130 | 0945 | 1030 | 1140 | 1350 | 1600 | 0700 | 0900 | 1700 |
| T ℃ | 0 | 17.0 | 17.6 | 17.3 | 15.0 | 15.0 | 14.5 | 15.8 | 16.4 | 14.8 | 15.5 | 15.7 |
| | 10 | 16.9 | 17.5 | 17.0 | 15.0 | 14.8 | 15.0 | 15.6 | — | 14.8 | 15.5 | — |
| | 20 | 16.7 | 16.9 | 16.8 | 14.7 | — | 14.7 | 15.5 | — | 14.5 | 15.1 | — |
| | 30 | 16.7 | 16.9 | 16.8 | — | — | — | 15.5 | — | 14.3 | 15.0 | — |
| | 50 | 16.5 | 16.8 | 16.5 | — | — | — | — | — | 14.0 | 14.7 | — |
| S ‰ | 0 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| | 50 | | | | | | | | | | | |
| Depth(m) | | — | — | — | 22 | 15 | 23 | 30 | — | — | — | — |
| Water Trans. (m) | | — | — | — | — | — | — | — | — | — | — | — |
| Water Color | | — | — | — | — | — | — | — | — | — | — | — |
| Wave | | — | — | — | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 |
| Swell | | — | — | — | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 |
| Air Temp(°C) | | — | — | — | 14.0 | 12.5 | 14.0 | 14.5 | 15.0 | 14.0 | 14.2 | 13.0 |
| Baro. (mb) | | — | — | — | — | — | — | — | — | — | — | — |
| Wind | | — | — | — | NW 2 | NW | NW 3 | NW 2 | NW 4 | NW 2 | NW 1 | NW 2 |
| Cloud | | — | — | — | 9 | 8 | 9 | 5 | Cu 4 | 3 | 1 | Cu 5 |
| Weather | | — | — | — | C | C | C | BC | BC | BC | B | BC |

| Month | | 12월(장 광 호) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 04 | 03 | 03 | 07 | 06 | 05 | 04 | 02 | 03 | 01 |
| Day | | 3 | 4 | 7 | 9 | 19 | 21 | 22 | 23 | 25 | 26 | 29 |
| Item | Time / Z(m) | 0700 | 0800 | 0900 | | 0720 | 0740 | 0630 | 0635 | 0640 | 0710 | 0640 |
| T ℃ | 0 | 14.0 | 14.2 | 12.5 | 12.5 | 15.7 | 16.3 | 14.4 | 15.7 | 15.4 | 15.8 | 16.0 |
| | 10 | 14.0 | 14.1 | 12.4 | 12.2 | 15.6 | 16.1 | 15.2 | 15.4 | 15.3 | 15.6 | 15.9 |
| | 20 | 13.8 | 13.8 | 12.2 | 11.7 | 15.0 | 15.7 | 14.8 | 15.1 | 14.9 | 15.2 | 15.6 |
| | 30 | 13.5 | 13.6 | 12.0 | 11.5 | 15.0 | 15.3 | 14.8 | 15.1 | 14.9 | 15.2 | 15.4 |
| | 50 | 13.0 | 13.2 | 11.9 | 11.0 | 14.9 | 14.9 | 14.6 | 14.9 | 14.6 | 15.0 | 15.2 |
| | 75 | — | — | 11.7 | 10.7 | — | — | — | — | — | — | — |
| S ‰ | 0 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| | 50 | | | | | | | | | | | |
| | 75 | | | | | | | | | | | |
| Depth(m) | | — | — | — | — | — | — | — | — | — | — | — |
| Water Trans(m) | | — | — | — | — | — | — | — | — | — | — | — |
| Water Color | | — | — | — | — | — | — | — | — | — | — | — |
| Wave | | 2 | 1 | 1.5 | — | — | — | — | — | — | — | — |
| Swell | | 1 | 1 | 1.5 | — | — | — | — | — | — | — | — |
| Air Temp(°C) | | 7.5 | 7.0 | 4.0 | — | — | — | — | — | — | — | — |
| Baro. (mb) | | — | — | — | — | — | — | — | — | — | — | — |
| Wind | | NW 2 | NW 2 | NW | — | — | — | — | — | — | — | — |
| Cloud | | Cu 4 | Cu 3 | 7 | — | — | — | — | — | — | — | — |
| Weather | | BC | BC | BC | — | — | — | — | — | — | — | — |

# L선 해 양 관측 성 적

## Oceanographic Data Line L

| Month | | 11월(백 두 산) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
| Day | | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| Item | Time / Z(m) | 1020 | 1400 | 1655 | 0415 | 2100 | 2230 | 0330 | 0510 | 1055 | 1240 |
| T ℃ | 0 | 18.61 | 20.91 | 20.26 | 20.71 | 20.78 | 20.82 | 20.89 | 20.97 | 20.70 | 21.31 |
| | 10 | 18.59 | 20.90 | 20.25 | 20.72 | 20.92 | 20.94 | 20.91 | 21.00 | 21.09 | 21.29 |
| | 20 | 18.55 | 20.92 | 20.13 | 20.72 | 20.92 | 20.92 | 20.88 | 20.97 | 20.90 | 21.26 |
| | 30 | 18.55 | 20.93 | 20.00 | 20.73 | 20.91 | 20.88 | 20.94 | 20.97 | 20.14 | 21.27 |
| | 50 | 18.58 | 21.02 | 19.51 | 20.73 | 20.93 | 20.93 | 20.91 | 20.96 | 20.48 | 21.16 |
| | 75 | 14.54 | 18.82 | 17.52 | 20.48 | 20.92 | 18.18 | 20.93 | 20.99 | — | 20.92 |
| | 100 | 9.90 | 15.57 | 14.76 | — | 19.37 | — | 20.26 | — | — | 19.53 |
| | 125 | — | — | 10.08 | — | — | — | — | — | — | — |
| | 150 | — | — | 3.87 | — | — | — | — | — | — | — |
| | 200 | — | — | — | — | — | — | — | — | — | — |
| | Botm | — | — | 3 56 | 18 87 | 7.11 | 14.03 | — | 20.45 | 19.69 | 18.60 |
| S ‰ | 0 | | | | | | | | | | |
| | 10 | | | | | | | | | | |
| | 20 | | | | | | | | | | |
| | 30 | | | | | | | | | | |
| | 50 | | | | | | | | | | |
| | 75 | | | | | | | | | | |
| | 100 | | | | | | | | | | |
| | 125 | | | | | | | | | | |
| | 150 | | | | | | | | | | |
| | 200 | | | | | | | | | | |
| | Botm | | | | | | | | | | |
| Depth(m) | | — | — | 190 | 103 | 133 | 128 | 110 | 100 | 76 | 124 |
| Water Trans. | | 17 | 12 | 11 | — | — | — | — | — | — | 12 |
| Water Color | | 4 | — | — | — | — | — | — | — | — | 6 |
| Wave | | — | — | — | — | — | — | — | — | — | — |
| Swell | | — | — | — | — | — | — | — | — | — | — |
| Air Temp. (°C) | | — | — | — | — | — | — | — | — | — | — |
| Baro. (mb) | | — | — | — | — | — | — | — | — | — | — |
| Wind | | — | — | — | — | — | — | — | — | — | — |
| Cloud | | — | — | — | — | — | — | — | — | — | — |
| Weather | | — | — | — | — | — | — | — | — | — | — |

# 남 해 해 양 조 사 성 적

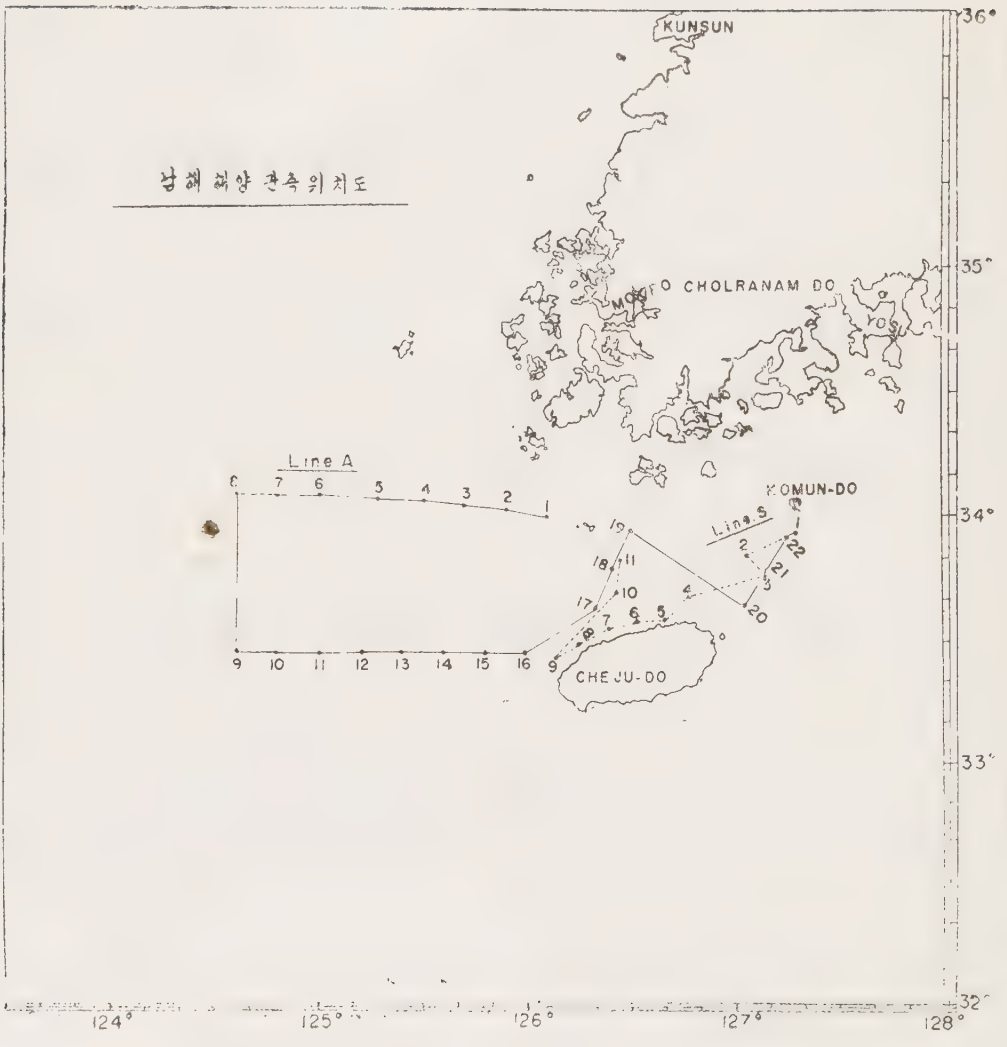
# OCEANOGRAPHIC OBSERVATIONS SOUTHERN WATERS

1 9 6 7

# 남해 해양관측점 위치표

## Station Positions Southern Coast

| Line \ St No. | 01 | 02 | 03 | 04 | 05 | 06 |
|---|---|---|---|---|---|---|
| 천갱이 A 고등어어장 선 조사선 | 33° 58′ 5″<br>126° 06′ 0″ | 33° 59′ 8″<br>125° 54′ 0″ | 34° 01′ 3″<br>125° 42′ 0″ | 34° 02′ 6″<br>125° 30′ 0″ | 34° 04′ 1″<br>125° 18′ 0″ | 34° 05′ 5″<br>125° 00′ 0″ |
| | 07 | 08 | 09 | 10 | 11 | 12 |
| | 34° 05′ 5″<br>124° 48′ 0″ | 34° 05′ 5″<br>123° 36′ 0″ | 33° 24′ 4″<br>124° 36′ 0″ | 33° 24′ 4″<br>124° 48′ 0″ | 33° 24′ 4″<br>125° 00′ 0″ | 33° 24′ 4″<br>125° 12′ 0″ |
| | 13 | 14 | 15 | 16 | 17 | 18 |
| | 33° 24′ 4″<br>125° 24′ 0″ | 33° 24′ 4″<br>125° 36′ 0″ | 33° 24′ 4″<br>125° 48′ 0″ | 33° 24′ 4″<br>126° 00′ 0″ | 33° 38′ 3″<br>126° 21′ 3″ | 33° 47′ 5″<br>126° 26′ 3″ |
| | 19 | 20 | 21 | 22 | | |
| | 33° 56′ 6″<br>126° 31′ 4″ | 33° 35′ 8″<br>127° 03′ 2″ | 33° 45′ 5″<br>127° 09′ 2″ | 33° 54′ 1″<br>127° 15′ 2″ | | |
| S 제주부근 어장조사 선 | 01 | 02 | 03 | 04 | 05 | 06 |
| | 33° 55′ 30″<br>127° 11′ 45″ | 33° 50′ 30″<br>127° 03′ 30″ | 33° 45′ 25″<br>126° 55′ 15″ | 33° 40′ 20″<br>126° 47′ 00″ | 33° 33′ 45″<br>126° 39′ 30″ | 33° 34′ 20″<br>126° 32′ 05″ |
| | 07 | 08 | 09 | 10 | 11 | |
| | 33° 32′ 40″<br>126° 23′ 00″ | 33° 29′ 55″<br>126° 14′ 30″ | 33° 25′ 00″<br>126° 08′ 45″ | 33° 41′ 30″<br>126° 26′ 35″ | 33° 49′ 30″<br>126° 26′ 45″ | |


남해 해양 관측 위치도
KUNSUN
CHOLRANAM DO
KOMUN-DO
CHEJU-DO
Line A
Line S
36°
35°
34°
33°
32°
124°
125°
126°
127°
128°

# A선 해 양 관 측 성 적

## Oceanographic Data Line A

| Month | | 6월 (북 한 산) | | | | | | | | 7월 (북한산) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 |
| Day | | 29 | 29 | 29 | 29 | 29 | 30 | 30 | 30 | 3 | 3 | 3 |
| Item | Time / Z(m) | 1240 | 1445 | 1625 | 1750 | 1925 | 0540 | 0705 | 0840 | 1020 | 1150 | 1315 |
| T ℃ | 0 | 21.80 | 22.40 | 23.20 | 20.50 | 21.00 | 21.00 | 21.50 | 21.80 | 22.70 | 22.60 | 23.00 |
| | 10 | 20.21 | 21.27 | 20.70 | 20.20 | 20.25 | 20.92 | 20.70 | 20.90 | 22.96 | 22.63 | 22.52 |
| | 20 | 20.84 | 18.57 | 17.26 | 16.61 | 19.50 | 14.20 | 10.47 | 14.62 | 13.09 | 14.38 | 15.73 |
| | 30 | 12.34 | 14.62 | 12.61 | 11.34 | 12.50 | 12.61 | 12.15 | 11.23 | 11.15 | 11.13 | 11.41 |
| | 50 | 12.31 | — | 11.42 | 10.63 | 11.32 | 10.71 | 10.75 | 11.50 | 10.59 | 10.72 | 11.45 |
| | 75 | — | — | — | — | 10.54 | 10.47 | — | 10.64 | — | — | — |
| | Botm | 12.54 | 11.36 | 10.94 | 10.44 | 10.55 | 10.35 | 10.46 | 10.47 | 10.41 | 10.73 | 12.84 |
| S ‰ | 0 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| | 50 | | | | | | | | | | | |
| | 75 | | | | | | | | | | | |
| | Botm | | | | | | | | | | | |
| Depth(m) | | 74 | 66 | 72 | 72 | 94 | 95 | 80 | 84 | 74 | 73 | 75 |
| Water Trans. | | 19 | 20 | 17 | 13 | 14 | 10 | 15 | 15 | 14 | 17 | 17 |
| Water Color | | 3 | 3 | 3 | 3 | 3 | — | 3 | 3 | 4 | 3 | 3 |
| Wave | | SE 3 | SE 3 | SE 4 | SE 3 | SE 2 | 4 | 5 | — | 4 | 4 | 4 |
| Swell | | 2 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 4 | 4 | 4 |
| Air Temp(°C) | | 22.5 | 22.4 | 24.1 | 23.5 | 20.3 | 2 | 22.0 | 23.8 | 24.0 | 24.2 | 24.4 |
| Baro. (mb) | | 1012 | 1012 | 1014 | 1015 | 1015 | 1017 | 1017 | | 1007 | 1007 | 1007 |
| Wind | | SE 3 | SE | SE 4 | SE | SE | E 4 | E 5 | — | WNW | WNW4 | WNW4 |
| Cloud | | St 3 | St 4 | Al 8 | Al 9 | Al 9 | Al 10 | Al 10 | Al 3 | Al 3 | Al 3 | Al 6 |
| Weather | | BC | BC | C | C | C | C | C | BC | BC | BC | BC |

| Month | | 7월 (북 한 산) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| Day | | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 | 6 | 6 | 6 |
| Item | Time / Z(m) | 1440 | 1600 | 1720 | 1840 | 2000 | 1000 | 1130 | 1300 | 1620 | 1750 | 1920 |
| T ℃ | 0 | 23.80 | 23.00 | 23.20 | 22.50 | 22.30 | 20.80 | 21.80 | — | 20.00 | 21.00 | 18.80 |
| | 10 | 23.42 | 22.67 | 23.09 | 23.32 | 22.63 | 19.90 | 21.91 | 21.06 | 20.40 | 21.52 | 19.16 |
| | 20 | 20.36 | 22.09 | 22.63 | 22.70 | 22.61 | 19.80 | 19.79 | 20.18 | 18.82 | 21.10 | 18.29 |
| | 30 | 15.10 | 15.46 | 19.85 | 17.63 | 18.13 | 18.48 | 16.83 | 18.37 | 17.87 | 18.17 | 16.41 |
| | 50 | 15.02 | 13.79 | 13.59 | 13.88 | 15.02 | 16.95 | 14.94 | — | 15.77 | 15.35 | 13.72 |
| | 75 | — | — | 13.76 | 13.62 | 14.29 | 15.74 | 12.83 | — | 14.75 | 16.04 | 14.57 |
| | 100 | — | — | — | — | — | 14.25 | — | — | 14.56 | — | — |
| | Botm | 13.99 | 13.77 | 13.38 | 13.60 | 14.20 | 12.44 | 12.34 | 14.35 | 14.54 | 15.56 | — |
| S ‰ | 0 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| | 50 | | | | | | | | | | | |
| | 100 | | | | | | | | | | | |
| | Botm | | | | | | | | | | | |
| Depth(m) | | 82 | 84 | 91 | 92 | 103 | 128 | 100 | 57 | 122 | 96 | 84 |
| Water Trans | | 18 | 17 | 16 | 15 | 17 | 13 | 15 | 13 | 13 | 14 | — |
| Water Color | | 3 | 3 | 3 | 4 | — | 3 | 3 | 3 | 3 | 3 | — |
| Wave | | 4 | 5 | 4 | 4 | 4 | 3 | 3 | 4 | 5 | 5 | 5 |
| well | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Air Temp(°C) | | 24.4 | 24.7 | 23.0 | 22.2 | 22.1 | 20.6 | 20.8 | 21.0 | 21.0 | 20.5 | 20.0 |
| Baro. (mb) | | 1007 | 1007 | 1007 | 1007 | 1007 | 1009 | 1009 | 1009 | 1010 | 1010 | 1010 |
| Wtind | | WNW 4 | WNW 5 | WNW | WNW 4 | WNW | E 3 | E 3 | E 4 | E 5 | E 5 | E 5 |
| Cloub | | Al 6 | Al 8 | Al 9 | Al 9 | Al 9 | St 9 | St 9 | St 7 | St 9 | St 10 | St 10 |
| Weather | | BC | C | C | C | C | C | C | BC | C | C | C |

# S선 해 양 관 측 성 적

## Oceanographic Data, Line S

| Month | | 8월 (북 태 산) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 |
| Day | | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 9 | 9 |
| Item | Time / Z(m) | 0855 | 0950 | 1100 | 1200 | 1345 | 1750 | 1855 | 1955 | 2055 | 0715 | 0815 |
| T | 0 | 27.4 | 27.1 | 27.4 | 27.4 | 27.4 | 27.7 | 27.3 | 27.1 | 25.3 | 26.3 | 26.4 |
| | 10 | 25.8 | 26.0 | 26.3 | 26.5 | 25.0 | 27.2 | 27.0 | 25.5 | 23.2 | 25.8 | 25.0 |
| | 20 | 24.0 | 24.5 | 24.2 | 26.2 | 20.7 | 26.0 | 25.0 | 21.5 | 23.0 | 22.3 | 19.8 |
| | 30 | 17.6 | 22.4 | 18.8 | 21.5 | 19.0 | 21.8 | 20.5 | 17.2 | 19.8 | 20.0 | 16.2 |
| | 50 | 13.3 | 16.2 | 16.3 | 15.8 | — | 17.0 | 15.3 | 14.8 | 14.9 | 13.5 | 13.0 |
| ℃ | 75 | 13.5 | 14.4 | 14.3 | 14.7 | — | 14.8 | 14.4 | 14.7 | — | 13.2 | 11.9 |
| | 100 | — | — | 14.2 | 14.5 | — | 14.4 | 14.4 | — | — | 13.4 | — |
| | Botm | — | 14.2 | 14.2 | 14.2 | 15.9 | 14.4 | — | 14.6 | 14.6 | 13.4 | 11.9 |
| S | 0 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| | 50 | | | | | | | | | | | |
| ‰ | 75 | | | | | | | | | | | |
| | 100 | | | | | | | | | | | |
| | Botm | | | | | | | | | | | |
| Depth(m) | | 75 | 88 | 113 | 130 | 49 | 108 | 100 | 91 | 72 | 110 | 80 |
| Water Trans | | — | — | — | — | — | — | — | — | — | — | — |
| Water Color | | — | — | — | — | — | — | — | — | — | — | — |
| Wave | | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 2 | 1 | 2 | 2 |
| Swell | | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 |
| Air Temp(°C) | | 30.2 | 30.2 | 30.2 | 30.2 | 30.2 | [illegible] | [illegible] | 28.5 | 27.5 | [illegible] | [illegible] |
| Baro. (mb) | | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1009 | 1009 |
| Wind | | 0 | 0 | 3 | 4 | 2 | 8 | 2 | 2 | 2 | 4 | 2 |
| Cloud | | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 2 | 1 | 2 | 2 |
| Weather | | B | B | B | B | B | R | BC | B | B | B | B |

# 서 해 해 양 조 사 성 적

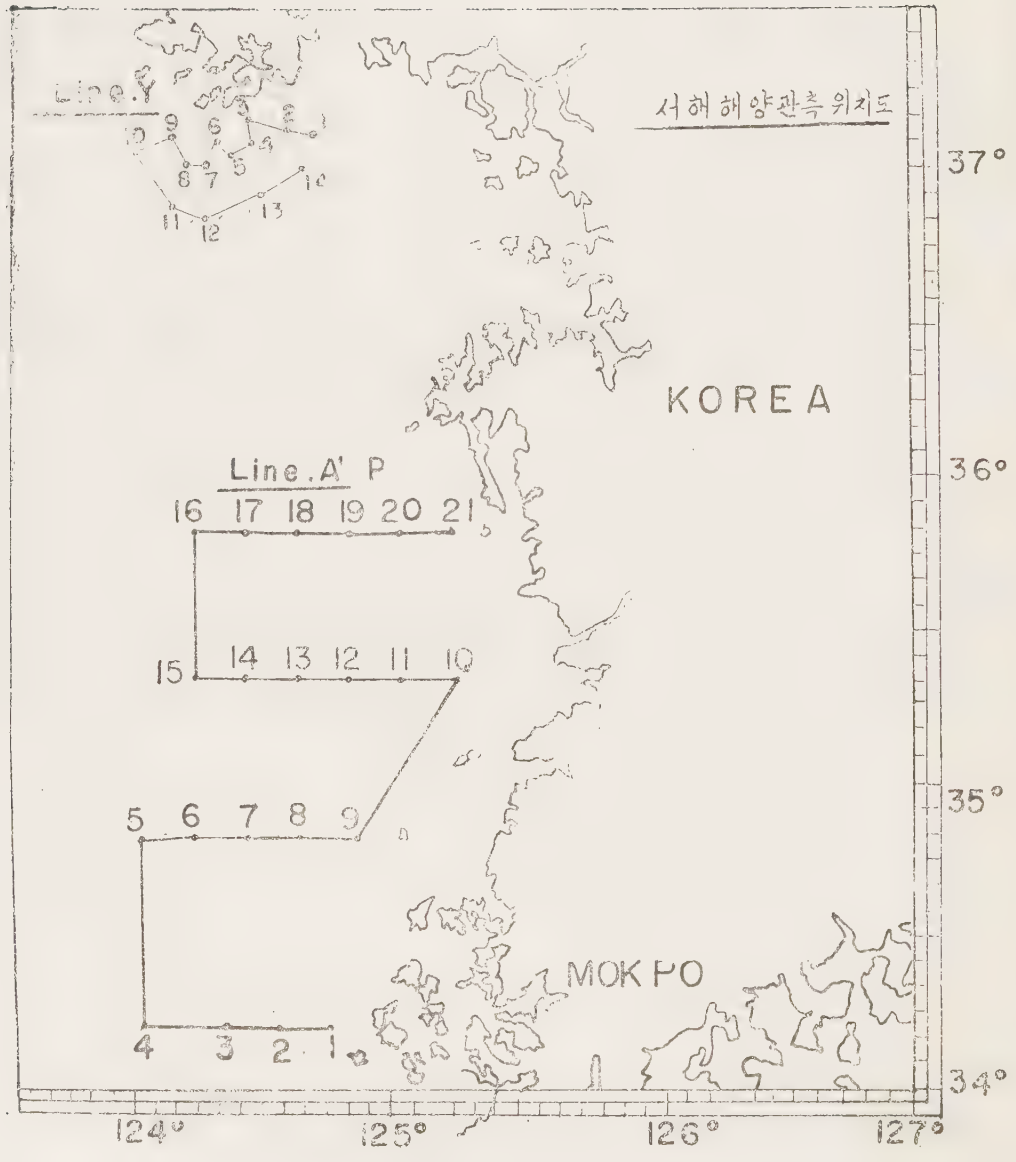
# OCEANOGRAPHIC OBSERVATIONS WESTERN WATERS

1 9 6 7

# 서해 해양관측점 위치표

## Station Positions Southern Coast

| St No. / Line | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
| | 34° 43′ 0″<br>125° 43′ 9″ | 34° 43′ 0″<br>125° 31′ 9″ | 34° 43′ 0″<br>125° 19′ 4″ | 34° 43′ 0″<br>125° 00′ 0″ | 35° 20′ 1″<br>125° 00′ 0″ | 35° 20′ 1″<br>125° 12′ 1″ | 35° 20′ 1″<br>125° 24′ 4″ |
| P 고등어 | 08 | 09 | 10 | 11 | 12 | 13 | 14 |
| 전갱이 | 35° 20′ 1″<br>125° 36′ 5″ | 35° 20′ 0″<br>125° 49′ 3″ | 35° 51′ 3″<br>126° 14′ 7″ | 35° 51′ 3″<br>126° 02′ 0″ | 35° 51′ 3″<br>125° 49′ 3″ | 35° 51′ 3″<br>125° 37′ 0″ | 35° 51′ 3″<br>125° 24′ 4″ |
| 선어장선 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | 35° 51′ 3″<br>125° 12′ 3″ | 36° 19′ 8″<br>125° 12′ 4″ | 35° 19′ 8″<br>125° 25′ 3″ | 36° 19′ 8″<br>125° 37′ 0″ | 36° 19′ 8″<br>125° 50′ 0″ | 36° 19′ 8″<br>126° 02′ 3″ | 36° 19′ 8″<br>126° 14′ 4″ |
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
| Y 연평도 | 37° 36′ 15″<br>125° 38′ 00″ | 37° 36′ 20″<br>125° 31′ 20″ | 37° 39′ 00″<br>125° 25′ 20″ | 37° 34′ 00″<br>125° 25′ 20″ | 37° 32′ 05″<br>125° 20′ 15″ | 37° 35′ 10″<br>125° 16′ 15″ | 37° 30′ 00″<br>125° 14′ 30″ |
| 조기어장선 | 08 | 09 | 10 | 11 | 12 | 13 | 14 |
| | 37° 31′ 35″<br>125° 08′ 55″ | 37° 35′ 00″<br>125° 04′ 15″ | 37° 32′ 30″<br>124° 56′ 15″ | 37° 22′ 45″<br>125° 05′ 45″ | 37° 19′ 50″<br>125° 14′ 10″ | 37° 24′ 00″<br>125° 26′ 15″ | 37° 28′ 20″<br>125° 37′ 05″ |


서 해 해 양 관 측 위 치 도
Line.Y
Line.A' P
KOREA
MOKPO
37°
36°
35°
34°
124°
125°
126°
127°

# P선 해 양 관 측 성 적

## Oceanographic Data, Line P

| Month | | 9월 (북 한 산) | | | | | | | | | 10월(북한산 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 |
| Day | | 28 | 28 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 4 | 4 |
| Item | Time / Z(m) | 1610 | 1735 | 0715 | 0840 | 1430 | 1600 | 1800 | 1930 | 2130 | 0815 | 0940 |
| T ℃ | 0 | 21.00 | 20.84 | 21.21 | — | 21.90 | 20.30 | 20.63 | 20.64 | 20.80 | 20.77 | 19.40 |
| | 10 | 19.35 | 19.09 | 18.40 | 21.54 | 20.89 | 20.00 | 20.18 | 20.50 | 20.25 | 20.49 | 19.24 |
| | 20 | 19.14 | 18.92 | 16.95 | 19.41 | 18.79 | 17.35 | 17.39 | 19.66 | 20.42 | — | 18.97 |
| | 30 | — | 18.07 | 16.95 | 18.16 | 17.34 | 16.32 | 15.07 | 19.12 | 17.47 | — | — |
| | 50 | — | 17.47 | 16.96 | 14.73 | 14.75 | 11.63 | 11.60 | 12.01 | 14.54 | — | — |
| | Botm | 18.89 | 16.13 | 15.42 | 13.16 | 10.58 | 10.77 | 9.30 | 8.54 | 9.11 | 18.51 | 19.02 |
| S ‰ | 0 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| | 50 | | | | | | | | | | | |
| | Botm | | | | | | | | | | | |
| Depth(m) | | 35 | 75 | 80 | 74 | 80 | 78 | 70 | 76 | 75 | 22 | 32 |
| Water Trans. | | 3 | 10 | 12 | 18 | 18 | 18 | 15 | 13 | — | 3 | 7 |
| Water Color | | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | — | 5 | 5 |
| Wave | | 3 | 2 | 2 | 4 | — | 4 | 4 | 4 | 4 | 2 | 2 |
| Swell | | 1 | 1 | 1 | 4 | — | 4 | 4 | 4 | 4 | 0 | 0 |
| Air Temp. (°C) | | 21.2 | 20.7 | 20.5 | 21.0 | 21.3 | 21.5 | 21.3 | 21.0 | 20.0 | 19.0 | 19.0 |
| Baro (mb) | | 1016.1 | 1016.1 | 1014.1 | 1014.0 | 1014.0 | 1014.0 | 1014.2 | 1014.0 | 1014.0 | 1020.7 | 1020.6 |
| Wind | | N 3 | N 3 | N 3 | N 4 | N 4 | N 4 | N 4 | N 4 | N 4 | SE 2 | SE 2 |
| Cloud | | Ci 2 | Ci 2 | 8 | Ci 8 | Cs 8 | Cs 8 | Ac 4 | Ac 5 | Cs 8 | Cs 8 | Cs 8 |
| Weather | | B | B | C | C | C | C | BC | BC | C | C | C |

| Month | | 10월(북 한 산) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| Day | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| Item | Time / Z(m) | 1045 | 1215 | 1345 | 1505 | 1830 | 1950 | 2110 | 2230 | 0805 | 0925 |
| T ℃ | 0 | 19.44 | 19.99 | 20.00 | 20.02 | 20.40 | 22.01 | 19.91 | 19.64 | 18.08 | 19.70 |
| | 10 | 18.99 | 19.80 | 18.84 | 19.29 | 19.98 | 20.58 | 18.91 | 19.29 | 18.13 | 19.43 |
| | 20 | 18.14 | 19.74 | 14.27 | 18.87 | 16.69 | 20.15 | 17.84 | 18.28 | — | — |
| | 30 | — | 19.63 | 14.23 | 12.24 | 15.47 | 18.46 | 14.69 | 17.87 | — | — |
| | 50 | — | — | 13.15 | 12.19 | 15.30 | — | — | — | — | — |
| | Botm | 17.45 | 16.16 | 13.02 | 13.89 | 16.28 | 12.64 | 14.60 | 18.13 | 18.14 | — |
| S ‰ | 0 | | | | | | | | | | |
| | 10 | | | | | | | | | | |
| | 20 | | | | | | | | | | |
| | 30 | | | | | | | | | | |
| | 50 | | | | | | | | | | |
| | Botm | | | | | | | | | | |
| Depth(m) | | 33 | 47 | 65 | 67 | 65 | 52 | 48 | 43 | 25 | 13 |
| Water Trans. | | 12 | 21 | 21 | 20 | 20 | — | — | — | 3 | 2 |
| Water Color | | 5 | 4 | 3 | 3 | 3 | — | — | — | 5 | 5 |
| Wave | | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Swell | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| Air Temp(°C) | | 18.5 | 19.3 | 18.9 | 20.9 | 17.7 | 19.4 | 18.5 | 18.4 | 18.9 | 19.0 |
| Baro. (mb) | | 1020.5 | 1020.1 | 1020.0 | 1020.0 | 1020.0 | 1020.0 | 1020.2 | 1019.5 | 1017.5 | 1017.7 |
| Wind | | SE 2 | SE 2 | SE 2 | NW 2 | NW 2 | NW 2 | NW 2 | NW 3 | N 3 | N 3 |
| Cloud | | Cs 6 | Cs 5 | Ci 3 | Ci 3 | Ci 3 | Ci 2 | Ci 3 | Ci 4 | Cs 3 | Cs 3 |
| Weather | | BC | BC | BC | BC | BC | B | BC | BC | BC | BC |

# Y선 해 양 관 측 성 적

## Oceanographic Data Line Y

| Month | | 4월 (진 양 호) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 |
| Day | | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| Item | Time / Z(m) | 0630 | 0720 | 0750 | 0920 | 1020 | 1105 | 1210 | 1240-50 | 1410 | 1510 | 1710 |
| T ℃ | 0 | 8.77 | 8.71 | 8.59 | 8.13 | 7.91 | 7.84 | 7.22 | 8.10 | 7.18 | 6.89 | 8.69 |
| | 10 | 8.80 | 8.70 | 8.54 | 7.79 | 7.63 | 7.40 | 7.11 | 7.11 | 6.86 | 6.85 | 6.00 |
| | 20 | — | — | — | — | — | — | 8.68 | — | — | 6.70 | 5.94 |
| | 30 | — | — | — | — | — | — | — | — | — | — | 5.24 |
| | Botm | — | — | 9.81 | 7.69 | 7.51 | 7.34 | 8.60 | 7.09 | 6.81 | 8.50 | 5.09 |
| S ‰ | 0 | 30.71 | 30.71 | 30.78 | 31.16 | 31.26 | 31.49 | 31.59 | 31.74 | 31.81 | — | 31.67 |
| | 10 | 30.70 | 30.71 | 30.76 | 31.28 | 31.34 | 31.55 | 31.73 | 31.74 | 31.81 | 31.76 | 31.71 |
| | 20 | — | — | — | — | — | — | 31.72 | — | — | 31.78 | 31.95 |
| | 30 | — | — | — | — | — | — | — | — | — | — | 32.05 |
| | Botm | — | — | 30.78 | 31.35 | 31.45 | 31.58 | 31.42 | 31.74 | 31.81 | 31.80 | 31.95 |
| Depth(m) | | 14 | 15 | 20 | 18 | 22 | 20 | 30 | 20 | 20 | 36 | 54 |
| Water Trans. | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2 | 2 | 2 | 5 | 6 |
| Water Color | | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 7 | 8 | 6 | 7 |
| Wave | | SW 1 | SW 1 | SW 1 | — | SW 1 | SW 1 | SW 0 | SW 1 | SW 1 | W1 | W2 |
| Swell | | — | — | — | — | — | — | — | — | — | — | — |
| Air Temp(°C) | | 10.5 | 11.6 | 12.4 | 13.1 | 14.6 | 17.6 | 17.4 | 15.4 | 17.2 | 11.4 | 12.0 |
| Baro. (mb) | | 1015.0 | 1015.0 | 1015.0 | 1015.6 | 1015.6 | 1016.0 | 1016 | 1015.6 | 1016 | 1014.8 | 1014.0 |
| Wind | | SW 1 | SW 1 | SW 2 | SW 2 | SW 1 | SW 1 | SW 1 | 0 | — | W 2 | W 3 |
| Cloud | | St 3 | Ns 4 | Ns 3 | As 3 | Ns 4 | Ns 4 | Ns 4 | St 3 | St 3 | St 3 | St 4 |
| Weather | | BC | BC | BC | BC | BC | BC | BC | BC | BC | BC | BC |

| Month | | 4월(진양호) | | | 5월 (진 양 호) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 12 | 13 | 14 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Day | | 23 | 23 | 23 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Item | Time / Z(m) | 1825 | 1900 | 2035 | 0740 | 0810 | 0845 | 0920 | 1010 | 1045 | 1150 | 934 |
| T ℃ | 0 | 8.46 | 7.85 | 8.46 | 10.47 | 10.77 | 10.18 | 9.65 | 9.51 | 9.30 | 9.10 | 8.72 |
| | 10 | 6.96 | — | 8.38 | — | — | 10.00 | 9.21 | 9.13 | 8.70 | 8.62 | — |
| | 20 | 6.19 | — | — | — | — | — | — | — | — | — | — |
| | 30 | 5.21 | — | — | — | — | — | — | — | — | — | — |
| | Botm | 5.16 | 9.08 | 8.12 | 10.25 | 10.27 | 9.99 | 9.20 | 9.01 | 8.60 | 10.09 | 8.68 |
| S ‰ | 0 | 31.46 | 31.48 | 30.95 | 30.56 | 30.56 | 30.56 | 31.08 | 31.09 | 31.39 | 31.41 | 31.39 |
| | 10 | 31.65 | — | 31.04 | — | — | 30.63 | 31.09 | 31.12 | 31.43 | 31.40 | 31.38 |
| | 20 | 31.77 | — | — | — | — | — | — | — | — | | |
| | 30 | 32.07 | — | — | — | — | — | — | — | — | — | — |
| | Botm | 32.06 | 31.48 | 31.21 | 30.56 | 30.57 | 30.68 | 31.09 | 31.21 | 31.46 | 31.42 | 31.39 |
| Depth(m) | | 45 | 13 | 18 | 14 | 15 | 18 | 20 | 25 | 26 | 28 | 28 |
| Water Trans. | | 5 | 10 | — | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Water Color | | 7 | 1 | — | 10 | 10 | 10 | 10 | 9 | 9 | 9 | 10 |
| Wave | | SW 1 | NW 2 | NW 2 | — | — | — | — | — | — | — | NW 2 |
| Swell | | — | — | — | SW 2 | SW 2 | NW 2 | NW 2 | NW 2 | NW 2 | NW 2 | — |
| Air Temp. (°C) | | 12.7 | 12.2 | 11.4 | 14.4 | 14.2 | 15.8 | 16.2 | 14.2 | 14.0 | 15.2 | 13.8 |
| Baro. (mb) | | 1013 | 1012 | 1012.5 | 1005 | 1006 | 1005.7 | 1006.3 | 1006.7 | 1007 | 1007 | 1008 |
| Wind | | NE 2 | NW 2 | NW 2 | SW 1 | SW 1 | SW 1 | — | NW 1 | NW 1 | NW 1 | NW 2 |
| Cloud | | St 3 | St 3 | St 3 | Ns 2 | Ns 2 | Ns 2 | St 1 | St 1 | St 1 | St 1 | Ci 2 |
| Weather | | BC | BC | BC | B | B | B | B | B | B | B | B |

| Month | | 5월 (창 파 호) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 09 | 10 | 11 | 12 | 13 | 14 | 14 | 13 | 12 | 11 | 10 |
| Day | | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 |
| Item | Time / Z(m) | 1310 | 1350 | 1600 | 1705 | 1800 | 1930 | 0340 | 0950 | 1140 | 1320 | 1500 |
| T ℃ | 0 | 9.58 | 9.91 | 9.79 | 10.21 | 9.80 | 8.87 | 9.10 | 10.39 | 10.64 | 11.29 | 10.81 |
| | 10 | 8.69 | 8.95 | 8.57 | 8.57 | — | — | 9.65 | — | 9.46 | 9.84 | 10.40 |
| | 20 | — | 8.47 | 7.31 | 7.66 | — | — | — | — | 9.64 | 8.00 | — |
| | 30 | — | — | — | — | — | — | — | — | 9.21 | — | — |
| | Botm | 10.02 | 9.00 | 9.16 | 5.48 | 8.55 | 7.83 | 8.70 | 10.01 | 5.86 | 7.07 | 7.46 |
| S ‰ | 0 | — | 31.51 | — | 31.40 | 31.49 | 31.49 | 31.27 | — | 31.21 | 31.43 | — |
| | 10 | — | 31.51 | — | 31.60 | — | — | — | — | 31.20 | — | 31.76 |
| | 20 | — | 31.59 | 31.89 | 31.80 | — | — | — | — | 31.54 | 31.64 | — |
| | 30 | — | — | — | — | — | — | — | — | 31.63 | — | — |
| | Botm | — | 31.64 | 31.80 | 32.10 | 31.56 | 31.40 | — | — | 31.88 | 31.71 | — |
| Depth(m) | | 20 | 40 | 35 | 36 | 15 | 12 | 18 | 10 | 54 | 40 | 26 |
| Water Trans | | 1.5 | 1.5 | 1.5 | 2 | 1.5 | 2 | 0.5 | 1 | 3 | 3.5 | 5 |
| Water Color | | 7 | 7 | 7 | 7 | 9 | 7 | 9 | 9 | 7 | 7 | 4 |
| Wave | | — | — | NW 1 | — | — | — | W 1 | SW 1 | SW 1 | SW 1 | SW 1 |
| Swell | | NW 2 | NW 2 | — | NW 2 | NW 2 | NW 2 | — | - - | | - | - - |
| Air Temp. (°C) | | 13.9 | 14.7 | 12.8 | 14.2 | 14.1 | 12.3 | 13.2 | 13.7 | 14.3 | 17.6 | 19.2 |
| Baro. (mb) | | 1008.2 | 1008 | 1008 | 1007.4 | 1007.6 | 1007 | 1011.6 | 1011.9 | 1011.7 | 1009 | 1009.5 |
| Wind | | NW 2 | NW 2 | NW 1 | NW 2 | N 1 | NW 2 | W 2 | SW 1 | SW 1 | SW 1 | SW 1 |
| Cloud | | Ci 1 | St 3 | Ci 2 | Ci 2 | Ci 2 | Ci 2 | Ci 3 | Ci 3 | Cu 3 | Ci 6 | Ci 7 |
| Weather | | B | BC | B | B | B | B | BC | BC | BC | BC | BC |

| Month | | 5월 (진 양 호) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | 09 | 08 | 07 | 06 | 05 | 04 | 03 | 02 | 01 | 01 | 02 |
| Day | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 10 | 10 |
| Item | Time / Z(m) | 1550 | 1640 | 1740 | 1020 | 1910 | 2000 | 2050 | 2130 | 2220 | 0530 | 0650 |
| T ℃ | 0 | 9.59 | 9.99 | 10.21 | 11.32 | 10.25 | 10.62 | 11.54 | 11.78 | 11.42 | 12.50 | 12.45 |
| | 10 | 8.96 | 8.86 | 8.98 | 9.48 | 9.81 | 10.25 | — | — | — | — | — |
| | 20 | — | — | — | — | — | — | — | — | — | — | — |
| | 30 | — | — | — | — | — | — | — | — | — | — | — |
| | Botm | 8.90 | 8.73 | 8.91 | 9.31 | 9.71 | 10.11 | 10.93 | 11.33 | 12.82 | 12.48 | 12.11 |
| S ‰ | 0 | — | — | — | — | — | — | — | — | — | — | — |
| | 10 | 31.56 | — | — | — | — | — | — | — | — | — | — |
| | 20 | — | — | — | — | — | — | — | — | — | — | — |
| | 30 | — | — | — | — | — | — | — | — | — | — | — |
| | Botm | 31.49 | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | 24 | 24 | 23 | 28 | 20 | 18 | 16 | 15 | 15 | 13 | 14 |
| Watert Trans. | | 2 | 4 | 3.5 | 2.5 | 1 | — | — | — | — | — | — |
| Water Color | | 7 | 7 | 7 | 7 | 9 | — | — | — | — | — | — |
| Wave | | SW 1 | SW 1 | — | — | — | — | — | — | — | NW 1 | — |
| Swell | | — | — | — | — | — | — | — | — | — | — | — |
| AirTemp. (°C) | | 17.4 | 16.8 | 13.1 | 13.2 | 13.6 | 13.0 | 13.7 | 13.2 | 14.5 | 14.7 | 14.7 |
| Baro. (mb) | | 1009.2 | 1009.5 | 1009.2 | 1009.7 | 1010 | 1010 | 1009 | 1008.4 | 1009 | 1014.7 | 1014.9 |
| Wind | | — | — | — | — | — | — | — | — | — | NW 2 | NW 1 |
| Cloud | | Ci 9 | St 7 | St 9 | Ns 10 | St 10 | St 10 | St 10 | St 10 | St 10 | Ns 10 | Ns 10 |
| Weather | | C | BC | C | C | C | C | C | C | C | C | C |

| Month | | 5월 (진 양 호) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 03 | 04 | 05 | 06 | 07 | 09 | 08 | 10 | 11 | 12 | 13 |
| Day | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Item | Time / Z(m) | 0730 | 0835 | 0935 | 1030 | 1120 | 1335 | 1235 | 1440 | 1620 | 1745 | 1905 |
| T ℃ | 0 | 12.29 | 11.69 | 10.74 | 10.33 | 10.76 | 9.61 | 10.07 | 9.45 | 12.20 | 17.45 | 11.50 |
| | 10 | 12.20 | — | 10.49 | 10.31 | 10.71 | 9.48 | 9.88 | 9.30 | 9.96 | 11.41 | — |
| | 20 | — | — | — | 10.13 | — | — | 9.64 | — | 7.43 | 10.45 | — |
| | 30 | — | — | — | — | — | — | — | — | 6.95 | — | — |
| | Botm | 11.22 | 11.42 | 10.32 | 10.11 | 10.11 | 9.42 | 9.61 | 9.28 | 6.82 | 11.51 | 10.95 |
| S ‰ | 0 | — | — | — | — | — | 31.26 | 31.52 | 31.66 | 31.49 | 31.16 | 31.04 |
| | 10 | — | — | — | — | — | 31.58 | — | 31.67 | 31.49 | 31.28 | — |
| | 20 | — | — | — | — | — | — | 31.60 | — | 31.67 | — | — |
| | 30 | — | — | — | — | — | — | — | — | 31.78 | — | — |
| | Botm | — | — | — | — | — | 31.62 | 31.61 | 31.67 | 31.80 | 31.28 | 31.12 |
| Depth(m) | | 22 | 15 | 22 | 30 | 26 | 23 | 32 | 26 | 48 | 21 | 14 |
| Water Trans. | | 0.8 | 1 | 1 | 1 | 1 | 1 | 1.5 | 1 | 5 | 1 | 1 |
| Water Color | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 4 | 9 | 9 |
| Wave | | — | — | — | — | — | — | NW 1 | W 1 | W 1 | W 1 | SW 1 |
| Swell | | — | — | — | — | — | — | — | — | — | — | — |
| Air Temp(°C) | | 15.6 | 14.7 | 14.2 | 13.8 | 13.9 | 13.7 | 13.5 | 13.0 | 16.4 | 14.3 | 13.5 |
| Baro. (mb) | | 1014.5 | 1014.6 | 1015 | 1015 | 1015.5 | 1015 | 1015.2 | 1015.5 | 1014.7 | 1014.7 | 1014.2 |
| Wind | | NW 1 | NW 1 | NW 1 | W 1 | W 1 | W 1 | NW 1 | W 2 | W 2 | W 1 | NW 1 |
| Cloud | | Ns 10 | Ns 10 | Ns 10 | Ns 10 | Ns 10 | Ns 10 | Ns 10 | Ns 10 | Ns 10 | St 8 | St 10 |
| Weather | | C | C | C | C | C | C | C | C | C | C | C |

| Month | | 5월 (진 양 호) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | 14 | 01 | 02 | 04 | 05 | 07 | 08 | 09 | 10 | 11 | 12 |
| Day | | 10 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Item | Time / Z(m) | 2020 | 0705 | 0810 | 0900 | 0948 | 1054 | 1145 | 1243 | 1406 | 1505 | 1645 |
| T ℃ | 0 | 12.23 | 13.34 | 13.29 | 12.07 | 12.41 | 11.33 | 11.32 | 10.87 | 12.82 | 12.52 | 12.71 |
| | 10 | — | — | — | 11.34 | 10.82 | 10.81 | 10.73 | 10.31 | 8.98 | 10.10 | — |
| | 20 | — | — | — | — | 10.71 | 10.89 | — | 10.24 | 8.96 | 9.64 | — |
| | 30 | — | — | — | — | — | 10.69 | — | — | 8.76 | 8.24 | — |
| | Botm | 11.82 | 12.79 | 13.13 | 11.24 | 10.62 | 10.54 | 10.69 | 10.20 | 8.11 | 7.49 | 11.39 |
| S ‰ | 0 | 30.76 | 30.55 | 30.52 | 30.99 | 31.02 | 31.46 | 31.46 | 31.59 | 31.53 | 31.32 | 30.96 |
| | 10 | — | — | — | 31.25 | 31.48 | 31.46 | 31.46 | 31.63 | 31.62 | 31.56 | — |
| | 20 | — | — | — | — | 31.51 | 31.45 | — | 31.61 | 31.67 | 31.60 | — |
| | 30 | — | — | — | — | — | 31.52 | — | — | 31.69 | 31.67 | — |
| | Botm | 30.75 | 30.54 | 30.54 | 31.29 | — | 31.59 | 31.52 | 31.63 | 31.76 | 31.75 | 31.17 |
| Depth(m) | | 12 | 14 | 14 | 22 | 30 | 42 | 24 | 30 | 50 | 50 | 14 |
| Water Trans. | | 0.5 | 1.8 | 1 | 1 | 1.5 | 1.5 | 1.8 | 2 | 5 | 3 | 2 |
| Water Color | | 10 | 10 | 10 | 10 | 9 | 7 | 5 | 9 | 4 | 7 | 7 |
| Wave | | SE 1 | SE 1 | SE 2 | SE 1 | — | — | 0 | SE 2 | N 2 | NNE 1 | NNE 1 |
| Swell | | — | SE 1 | SE 1 | SE 1 | SE 1 | SE 1 | E 1 | E 2 | N 2 | NNE 1 | NNE 1 |
| Air Temp. (°C) | | 13.3 | 16.5 | 15.2 | 14.1 | 18.8 | 18.8 | 18.9 | 17.9 | 18.4 | 15.8 | 17.4 |
| Baro. (mb) | | 1014.7 | 1014.7 | 1014.7 | 1014.7 | 1014.7 | 1014.5 | 1014.6 | 1014.2 | 1014 | 1013 | 1012.6 |
| Wind | | NW 1 | W 2 | W 2 | W 1 | S 1 | S 1 | S 1 | S 2 | S 2 | S 2 | S 1 |
| Cloud | | Ns 10 | Ci 1 | Ci 1 | Ci 1 | Ci 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Weather | | C | B | B | B | B | B | B | B | B | B | B |

| Month | | 5월 (진 양 호) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 13 | 14 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |
| Day | | 15 | 15 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Item | Time / Z(m) | 1815 | 1947 | 0540 | 0640 | 0725 | 0828 | 0923 | 1010 | 1110 | 1210 | 1310 |
| T ℃ | 0 | 14.40 | 13.92 | 14.39 | 14.31 | 14.18 | 13.72 | 13.14 | 11.71 | 11.71 | 11.20 | 12.10 |
| | 10 | — | — | — | — | — | — | 11.85 | 11.54 | 11.08 | 10.80 | 10.81 |
| | 20 | — | — | — | — | — | — | — | — | — | — | — |
| | 30 | — | — | — | — | — | — | — | — | — | — | — |
| | Botm | 12.11 | 13.31 | 14.34 | 14.23 | 14.12 | 12.69 | 11.81 | 11.53 | 11.04 | 10.77 | 10.76 |
| S ‰ | 0 | 31.04 | 30.52 | 30.53 | 30.58 | 30.57 | 30.78 | 30.98 | 31.58 | 31.66 | 31.69 | 31.66 |
| | 10 | — | — | — | — | — | — | 31.42 | 31.60 | 31.66 | 31.69 | 31.67 |
| | 20 | — | — | — | — | — | — | — | — | — | — | — |
| | 30 | — | — | — | — | — | — | — | — | — | — | — |
| | Botm | 31.04 | 30.58 | 30.56 | 30.59 | 30.57 | 31.02 | 31.49 | 31.59 | 31.66 | 31.69 | 31.68 |
| Depth(m) | | 12 | 14 | 14 | 15 | 15 | 20 | 30 | 34 | 30 | 28 | 21 |
| Water Trans. | | 1.5 | 1 | — | — | 1.5 | 1.5 | 2 | 4 | 2.5 | 3 | 4 |
| Water Color | | 5 | 9 | — | — | 5 | 7 | 7 | 7 | 7 | 6 | 5 |
| Wave | | — | — | — | — | NW 1 | — | — | SW 1 | — | — | — |
| Swell | | — | — | — | — | — | — | — | — | — | — | — |
| Air Temp. (°C) | | 17.3 | 15.5 | 15.9 | 16.7 | 16.4 | 17.8 | 16.8 | 18.4 | 18.2 | 18.5 | 19.2 |
| Baro. (mb) | | 1012.2 | 1012.3 | 1012.2 | 1012.1 | 1012.1 | 1011.4 | 1011.2 | 1011.2 | 1011.1 | 1010.4 | 1010.1 |
| Wind | | S 1 | S 1 | — | — | NW 2 | W 1 | — | SW 1 | 1 | S 1 | S 1 |
| Cloud | | 0 | Cu 2 | St 3 | St 2 | Ci 3 | Ci 1 | Ci 1 | Ci 1 | Ci 2 | Ci 1 | St 3 |
| Weather | | B | B | BC | B | BC | B | B | B | B | B | BC |

| Month | | 5월 (서 향 후) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 10 | 11 | 12 | 13 | 14 | 01 | 02 | 03 | 04 | 05 | 06 |
| Day | | 20 | 20 | 20 | 20 | 20 | 27 | 27 | 27 | 27 | 28 | 28 |
| Item | Time / Z(m) | 1425 | 1605 | 1740 | 1913 | 1948 | 0555 | 0700 | 0735 | 0843 | 0940 | 1030 |
| T ℃ | 0 | 15.57 | 12.89 | 15.00 | 16.74 | 14.02 | 15.81 | 15.91 | 15.65 | 15.17 | 15.72 | 15.61 |
| | 10 | 12.74 | 10.83 | 11.91 | — | — | — | — | 15.55 | 15.09 | — | 14.96 |
| | 20 | 11.68 | 9.84 | — | — | — | — | — | 15.46 | 14.87 | — | — |
| | 30 | 9.98 | 8.04 | — | — | — | — | — | — | 14.72 | — | — |
| | Botm | 8.64 | 7.25 | 10.70 | 12.56 | 13.12 | 15.78 | 15.71 | — | 14.66 | 15.34 | 14.83 |
| S ‰ | 0 | 31.52 | 31.49 | 31.48 | 31.06 | 30.96 | 30.42 | 30.45 | 30.54 | 30.47 | 30.51 | 30.58 |
| | 10 | 31.70 | 31.57 | 31.50 | — | — | — | — | 30.54 | 30.66 | — | 30.67 |
| | 20 | 31.56 | 31.65 | — | — | — | — | — | 30.57 | 30.74 | — | — |
| | 30 | 31.29 | 31.76 | — | — | — | — | — | — | 30.81 | — | — |
| | Botm | 31.49 | 31.80 | 31.76 | 31.13 | 30.93 | 30.42 | 30.44 | — | 30.84 | 30.49 | 30.67 |
| Depth(m) | | 52 | 48 | 25 | 12 | 14 | 16 | 18 | 20 | 29 | 18 | 21 |
| Water Trans. | | 18 | 10 | 7 | 25 | — | 1 | 1 | 1 | 1.5 | 1.5 | 1.5 |
| Water Color | | 4 | 4 | 5 | 7 | — | 10 | 10 | 10 | 10 | 10 | 10 |
| Wave | | — | — | — | — | — | N 1 | N 2 | N 2 | N 2 | SE 2 | SE 2 |
| Swell | | NW 3 | NNE 1 | NNE 2 | NE 2 | E 2 | E 1 | E 2 | E 2 | E 2 | W 2 | W 2 |
| Air Temp. (°C) | | 22.3 | 20.5 | 19.2 | 17.5 | 16.0 | 15.2 | 16.6 | 16.7 | 18.6 | 19.7 | 20.5 |
| Baro. (mb) | | 1009.8 | 1008.7 | 1008.3 | 1007.2 | 1008.6 | 1005 | 1005 | 1005 | 1005 | 1006.8 | 1006.9 |
| Wind | | S 1 | W 1 | S 1 | NE 2 | NE 2 | SW 1 | SE 2 | S 2 | S 2 | W 2 | W 2 |
| Cloud | | Ci 1 | St 4 | St 3 | St 4 | St 1 | St 4 | St 3 | St 2 | St 3 | Ci 2 | Ci 1 |
| Weather | | B | BC | BC | BC | B | BC | BC | B | BC | B | B |

| Month | | 5월 (진 양 호) | | | | | | | | | 6월(진양호) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 07 | 08 | 09 | 10 | 10-1 | 11 | 12 | 13 | 14 | 01 | 02 |
| Day | | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 2 | 2 |
| Item | Time / Z(m) | 1129 | 1237 | 1317 | 1430 | 1530 | 1610 | 1745 | 1915 | 2045 | 0520 | 0605 |
| T ℃ | 0 | 15.82 | 14.67 | 14.99 | 14.09 | 14.80 | 15.19 | 15.43 | 16.22 | 15.75 | 18.15 | 18.34 |
| | 10 | 14.18 | 13.79 | 13.33 | 13.20 | 13.08 | 12.57 | — | — | — | — | — |
| | 20 | — | — | — | — | 12.18 | 11.66 | — | — | — | — | — |
| | 30 | — | — | — | — | 11.98 | 11.22 | — | — | — | — | — |
| | 50 | — | — | — | — | 11.86 | — | — | — | — | — | — |
| | Botm | 14.07 | 13.62 | 13.23 | 13.16 | 10.13 | 9.74 | 13.21 | 14.59 | 15.69 | 16.93 | 16.84 |
| S ‰ | 0 | 30.89 | 30.86 | 31.06 | 31.33 | 31.24 | 31.52 | 30.93 | 30.90 | 30.45 | 30.43 | 30.46 |
| | 10 | 31.05 | 31.14 | 31.26 | 31.37 | 31.27 | 31.56 | — | — | — | — | — |
| | 20 | — | — | — | — | 31.50 | 31.68 | — | — | — | — | — |
| | 30 | — | — | — | — | 31.54 | 31.68 | — | — | — | — | — |
| | 50 | — | — | — | — | 31.53 | — | — | — | — | — | — |
| | Botm | 30.77 | 31.22 | 31.27 | 31.37 | 31.68 | 31.68 | 31.09 | 30.87 | 30.44 | 30.46 | 30.45 |
| Depth(m) | | 20 | 24 | 20 | 19 | 50 | 50 | 14 | 14 | 12 | 12 | 14 |
| Water Tans. | | 1 | 2 | 2.5 | 2.5 | 7 | 7.5 | 6 | 3 | 3 | 1 | 1 |
| Water Color | | 10 | 9 | 10 | 10 | 7 | 7 | 7 | 9 | 9 | 9 | 9 |
| Wave | | SE 2 | W 2 | NW 2 | W 2 | — | S 1 | E 1 | E 1 | E 2 | S 1 | S 1 |
| Swell | | SW 2 | SW 2 | W 2 | S 1 | — | W 1 | W 1 | W 1 | W 2 | SE 1 | — |
| Air Temp(°C) | | 18.6 | 20.5 | 19.4 | 20.1 | — | 19.6 | 18.1 | 17.3 | 16.7 | 16.8 | 18.2 |
| Baro. (mb) | | 1006.8 | 1006.2 | 1006.9 | 1006.4 | — | 1006 | 1006.1 | 1005.6 | 1006 | 1003.9 | 1004.2 |
| Wind | | W 2 | SW 2 | W 2 | S 1 | — | W 1 | W 1 | W 1 | W 1 | SW 1 | SW 1 |
| Cloud | | Ci 1 | Ci 1 | Ci 1 | 0 | — | — | — | — | Ci 1 | St 2 | St 1 |
| Weather | | B | B | B | B | — | B | B | B | B | B | B |

| Month | | 6월 (진 양 호) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St No. | | 04 | 05 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 01 |
| Day | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 7 |
| Item | Time / Z(m) | 0650 | 0745 | 0343 | 0942 | 1042 | 1207 | 1342 | 1520 | 1700 | 1830 | 0550 |
| T ℃ | 0 | 18.05 | 17.69 | 16.47 | 14.49 | 15.33 | 14.78 | 14.78 | 16.46 | 17.36 | 17.96 | 17.75 |
| | 10 | — | — | — | — | 14.99 | 13.35 | 13.75 | 13.60 | — | — | — |
| | 20 | — | — | — | — | — | — | 12.49 | 10.91 | — | — | — |
| | 30 | — | — | — | — | — | — | 10.53 | 9.67 | — | — | — |
| | Botm | 16.45 | 14.72 | 14.51 | 14.02 | 13.81 | 10.75 | 8.35 | 8.91 | 14.65 | 15.67 | 17.69 |
| S ‰ | 0 | 30.47 | 30.56 | 30.96 | 31.29 | 31.24 | 31.44 | 31.56 | 31.56 | 30.91 | 30.78 | 30.48 |
| | 10 | — | — | — | — | 31.33 | 31.44 | 31.63 | 31.65 | — | — | — |
| | 20 | — | — | — | — | — | — | 31.80 | 31.74 | — | — | — |
| | 30 | — | — | — | — | — | — | 31.36 | 31.36 | — | — | — |
| | Botm | 30.45 | 30.69 | 31.21 | 31.22 | 31.36 | 31.63 | 31.41 | 31.37 | 30.98 | 30.89 | 30.47 |
| Depth(m) | | 16 | 12 | 14 | 18 | 22 | 20 | 50 | 50 | 14 | 12 | 18 |
| Water Trans. | | 1.5 | 2 | 2 | 2.5 | 3 | 5 | 7 | 7.5 | 3 | 1.5 | 1 |
| Water Color | | 9 | 9 | 8 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 10 |
| Wave | | W 1 | SW 1 | SW 1 | — | SW 1 | S 1 | S 1 | S 1 | S 1 | NW 1 | NE 2 |
| Swell | | — | — | — | — | — | — | — | — | — | — | E 4 |
| Air Temp. (°C) | | 18.5 | 17.5 | 18.4 | 19.1 | 19.2 | 19.0 | 18.8 | 19.2 | 10.4 | 17.4 | 16.2 |
| Baro. (mb) | | 1004.1 | 1004.2 | 1004.2 | 1004.1 | 1004.2 | 1004.1 | 1003.9 | 1003.8 | 1003.8 | 1003.7 | 1004.1 |
| Wind | | NW 1 | S 1 | W 1 | S 1 | SW 1 | SE 1 | SE 1 | SE 1 | SE 1 | NW 1 | E 2 |
| Cloud | | St 2 | St 2 | St 3 | St 2 | Ci 2 | Ci 1 | Ci 1 | Ci 1 | Ci 3 | St 1 | St 1 |
| Weather | | B | B | BC | B | B | B | B | B | B | B | B |

| Month | | 6월 (진 양 호) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 02 | 04 | 05 | 07 | 03 | 09 | 10 | 11 | 12 | 13 | 14 |
| Day | | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Item | Time / Z(m) | 0650 | 0745 | 0840 | 0940 | 1035 | 1135 | 1245 | 1420 | 1600 | 1735 | 1905 |
| T | 0 | 17.81 | 17.50 | 17.03 | 15.80 | 15.37 | 14.84 | 14.60 | 15.52 | 16.99 | 17.51 | 17.49 |
| | 10 | — | — | 16.00 | — | 15.32 | 14.53 | 14.09 | 15.14 | 16.21 | — | — |
| | 20 | — | — | — | — | — | — | 13.99 | 13.69 | 13.48 | — | — |
| ℃ | 30 | — | — | — | — | — | — | — | 12.22 | 11.02 | — | — |
| | Botm | 17.67 | 16.54 | 15.55 | 15.14 | 14.96 | 14.34 | 13.73 | 9.74 | 9.10 | 16.30 | 16.75 |
| S | 0 | 30.45 | 30.54 | 31.10 | 31.13 | 31.30 | 31.40 | 31.45 | — | 31.00 | 30.75 | 30.81 |
| | 10 | — | — | 31.14 | — | 31.33 | 31.42 | 31.59 | 31.47 | 31.03 | — | — |
| | 20 | — | — | — | — | — | — | 31.52 | 31.51 | 31.36 | — | — |
| ‰ | 30 | — | — | — | — | — | — | — | 31.61 | — | — | — |
| | Botm | 30.56 | 30.82 | 31.03 | 31.25 | 31.30 | 31.34 | 31.50 | 31.73 | 31.79 | 30.72 | 31.15 |
| Depth(m) | | 20 | 20 | 24 | 20 | 23 | 24 | 45 | 52 | 49 | 14 | 12 |
| Water Trans. | | 1 | 1.5 | 1.5 | 2 | 2 | 2.5 | 3 | 8 | 6 | 2 | 1 |
| Water Color | | 10 | 9 | 9 | 8 | 8 | 8 | 7 | 7 | 7 | 9 | 9 |
| Wave | | NE 2 | NE 2 | NE 2 | NE 2 | SE 2 | SE 1 | S 2 | E 2 | SE 2 | SE 1 | SE 1 |
| Swell | | E 4 | E 4 | E 3 | E 2 | E 2 | S 1 | SE 2 | SE 2 | E 2 | E 2 | E 1 |
| Air Temp. (°C) | | 17.3 | 17.5 | 18.2 | 18.1 | 17.9 | 18.2 | 20.1 | 20.6 | 19.2 | 18.4 | 17.2 |
| Baro. (mb) | | 1004.5 | 1004.4 | 1004.1 | 1005.1 | 1005.2 | 1005.1 | 1006.1 | 1006.5 | 1005.4 | 1004.2 | 1004.3 |
| Wind | | E 2 | E 2 | E 2 | E 2 | E 2 | E 2 | SE 2 | SE 2 | E 2 | E 1 | E 1 |
| Cloud | | St 1 | St 1 | Ci 2 | Ci 1 | Ci 2 | Ci 2 | St 2 | St 1 | Ci 2 | Ci 2 | Ci 2 |
| Weather | | B | B | B | B | B | B | B | B | B | B | B |

# 남 태 평 양　해 양 조 사 성 적

# OCEANOGRAPHIC OBSERVATIONS SOUTH PASFIC

1 9 6 7

# 남태평양 해양조사 관측점 위치표

## Station Positions South Pasfic Water

A • 남태평양 어장선

| St No. / Line | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| | 32° 9′ 25″<br>129° 29′ 03″ | 30° 20′<br>129° 19′ 25″ | 30° 18′ 20″<br>129° 13′ | 30° 39′ 15″<br>130° 19′ 20″ | 30° 16′<br>131° 17′ | 31° 24′ 05″<br>132° 20′ | 31° 25′<br>132° 34′ | 32° 22′ 30″<br>134° 22′ 10″ |
| | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | 32° 52′<br>135° 27′ | 34° 13′<br>139° 42′ | 33° 18′ 22″<br>140° 10′ | 32° 34′<br>139° 38′ 30″ | 31° 51′<br>139° 57′ | 31° 01′<br>139° 58′ | 29° 57′ 4″<br>140° 15′ 20″ | 28° 42′<br>141° 12′ |
| | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| | 28° 18′<br>141° 32′ 3″ | 27° 24′<br>142° 10′ | 26° 26′ 05″<br>141° 59′ | 25° 31′<br>141° 43′ | 24° 12′<br>146° 25′ 5″ | 23° 38′<br>142° 10′ 8″ | 22° 36′<br>142° 57′ | 21° 53′<br>143° 41′ |
| | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| | 21° 03′<br>144° 17′ | 20° 27′ 5″<br>144° 56′ | 19° 39′<br>145° 12′ | 18° 37′<br>145° 35′ | 17° 45′<br>145° 35′ | 16° 44′<br>145° 52′ | 15° 44′<br>145° 48′ 4″ | 14° 57′<br>145° 01′ |
| | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| | 15° 04′ 26″<br>145° 26′ | 12° 46′<br>145° 05′ | 11° 46′<br>144° 53′ 3″ | 10° 51′<br>144° 39′ | 09° 30′<br>144° 31′ | 08° 48′<br>144° 10′ | 07° 56′<br>143° 43′ 30″ | 07° 55′<br>143° 12′ |
| | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| | 06° 07′<br>142° 38′ | 05° 34′<br>142° 02′ | 04° 50′<br>141° 05′ | 04° 48′<br>145° 45′ | 04° 14′<br>140° 34′ | 03° 50′<br>139° 56′ | 02° 57′<br>139° 10′ | 02° 01′<br>138° 32′ |
| | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
| | 01° 22′<br>137° 44′ | 0° 48′<br>137° 24′ | 0° 05′<br>136° 26′ | 0° 01′<br>136° 17′ | 0° 30′<br>135° 30′ | 0° 53′<br>134° 48′ | 01° 38′<br>133° 42′ | 02° 23′<br>133° 17′ |
| | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
| | 02° 09′<br>132° 18′ | 02° 56′<br>131° 16′ | 03° 25′<br>131° 41′ | 04° 20′<br>132° 13′ | 05° 15′<br>132° 52′ | 06° 22′<br>133° 44′ | 01° 38′<br>134° 58′ | 04° 23′<br>133° 47′ |
| | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 |
| | 03° 28′<br>133° 20′ | 02° 30′<br>133° 00′ | 02° 10′<br>132° 44′ | 01° 32′<br>132° 32′ | 0° 12′<br>132° 44′ | 0° 27′<br>132° 16′ | 0° 58′<br>131° 04′ | 01° 27′<br>130° 22′ |

# 남태평양 해양조사 관측점 위치표

## Station Positions South Pasfic Water

남태평양 어장선

| St No. / Line | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
|---|---|---|---|---|---|---|---|---|
| | 02° 00′<br>129° 38′ | 03° 05′<br>128° 26′ 3″ | 03° 48′<br>127° 54′ | 04° 59′<br>127° 13′ | 05° 54′<br>127° 12′ | 07° 00′<br>126° 56′ | 08° 00′<br>125° 50′ | 08° 00′<br>125° 50′ |
| | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 |
| | 09° 54′ 2″<br>126° 36′ | 11° 00′<br>125° 47′ | 12° 00′<br>125° 56′ | 13° 00′<br>125° 24′ | 14° 13′<br>124° 49′ | 15° 00′<br>124° 32′ | 16° 00′<br>123° 51′ 3″ | 17° 00′<br>123° 15′ |
| | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 |
| | 23° 00′<br>121° 56′ | 23° 22′<br>122° 17′ 5″ | 24° 05′<br>123° 00′ | 28° 00′<br>126° 05′ | 29° 02′<br>126° 36′ | 30° 00′<br>126° 56′ | 30° 52′ 3″<br>127° 15′ | 32° 00′<br>127° 47′ |
| | 97 | | | | | | | |
| | 33° 23′<br>128° 13′ | | | | | | | |

남해성왕 한국위치도
CHINA
KOREA
JAPAN
HONGKONG
PHILIPPINE
SEA
SULU
SEA
MALAY
SUMATRA
BORNEO
40°
30°
20°
10°
0°
150°

# 남 태 평 양 해 양 관 측 성 적

## Oceanographic Data, Line South Pacific Water

| Month | | 10월 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 |
| Day | | 21 | 22 | 22 | 22 | 22 | 23 | 23 | 23 | 23 | 29 | 30 |
| Item | Time / Z(m) | 1815 | 0050 | 0720 | 1355 | 2050 | 0210 | 0810 | 1410 | 2110 | 1810 | 0210 |
| T ℃ | 0 | 24.32 | 24.04 | 24.23 | 25.67 | 24.47 | 24.88 | 25.78 | 24.68 | 24.83 | 24.28 | 24.10 |
| | 10 | 24.24 | 24.02 | 24.26 | 25.62 | 24.54 | 24.85 | 25.66 | 24.63 | 24.80 | 24.02 | 24.08 |
| | 20 | 24.21 | 24.05 | 24.22 | 25.56 | 24.45 | 24.78 | 25.65 | 24.63 | 24.76 | 24.02 | 24.07 |
| | 30 | 24.21 | 24.05 | 24.21 | 25.54 | 24.43 | 24.77 | 25.37 | 24.64 | 24.78 | 23.99 | 24.05 |
| | 50 | 24.22 | 24.03 | 24.20 | 25.52 | 24.47 | 24.55 | 25.20 | 24.67 | 24.72 | 23.95 | 23.98 |
| | 75 | 24.24 | 24.00 | 22.55 | 25.56 | 23.96 | 24.42 | 25.02 | 22.79 | 24.67 | 24.00 | 23.50 |
| | 100 | 24.25 | 21.30 | 20.46 | 25.54 | 20.75 | 24.53 | 22.03 | 20.98 | 22.75 | 23.66 | 22.36 |
| | 125 | 21.07 | — | — | 20.04 | — | — | — | — | — | — | — |
| | 150 | 19.21 | 18.51 | 16.52 | 17.25 | 19.97 | 19.74 | 19.50 | 19.77 | 20.53 | 23.22 | 20.45 |
| | 200 | 16.94 | 15.22 | 12.53 | — | — | 16.84 | 18.35 | 18.78 | 18.74 | 17.52 | 19.78 |
| | 250 | — | 13.20 | 10.25 | — | — | — | 17.47 | — | 17.50 | — | — |
| | 300 | 13.76 | 11.69 | 9.26 | — | — | 12.40 | 16.54 | 17.82 | 15.80 | 16.20 | — |
| | 400 | — | — | — | — | — | 8.47 | — | 16.22 | — | 14.77 | — |
| | 500 | — | — | — | — | — | 6.51 | — | 13.42 | — | 13.22 | — |
| | Botm | 5.78 | — | — | 12.98 | — | — | — | — | — | — | 17.76 |
| S ‰ | 0 | 34.49 | — | — | 34.63 | — | 34.52 | — | 34.70 | — | 34.60 | — |
| | 10 | 34.46 | — | — | 34.61 | — | 34.50 | — | 34.68 | — | 34.60 | — |
| | 20 | 34.46 | — | — | 34.61 | — | 34.50 | — | 34.68 | — | 34.60 | — |
| | 30 | 34.47 | — | — | 34.60 | — | 34.49 | — | 34.67 | — | 34.60 | — |
| | 50 | 34.46 | — | — | 34.61 | — | 34.56 | — | 34.68 | — | — | — |
| | 75 | 34.45 | — | — | — | — | 34.44 | — | 34.84 | — | — | — |
| | 100 | 34.45 | — | — | 34.62 | — | 34.40 | — | 34.78 | — | 34.60 | — |
| | 125 | 34.44 | — | — | 34.66 | — | — | — | — | — | — | — |
| | 150 | 34.59 | — | — | 34.57 | — | 34.23 | — | 34.74 | — | 34.62 | — |
| | 200 | 34.57 | — | — | — | — | 34.26 | — | 34.68 | — | 34.53 | — |
| | 250 | 34.51 | — | — | — | — | — | — | — | — | — | — |
| | 300 | — | — | — | — | — | 34.46 | — | 34.64 | — | 34.45 | — |
| | 400 | — | — | — | — | — | 34.34 | — | 34.56 | — | — | — |
| | 500 | — | — | — | — | — | 34.27 | — | 34.44 | — | 34.77 | — |
| | Botm | 34.62 | — | — | 34.48 | — | — | — | — | — | — | — |
| Depth(m) | | 470 | 430 | 327 | 310 | 163 | 1600 | 3400 | 706 | 300 | — | 247 |
| Water Trans(m) | | 18 | — | — | 32 | — | — | 24 | — | — | — | — |
| Water Color | | 2 | — | — | 3 | — | — | 1 | — | — | — | — |
| Wave | | WNW 3 | NW 4 | NW 6 | NE 3 | S 2 | N 2 | NE 4 | ENE 3 | NNE 5 | SE 2 | NE 2 |
| Swell | | WNW 2 | NW 2 | NW 4 | NE 4 | S 4 | N 7 | NE 5 | ENE 4 | 6 | SE 4 | NE 3 |
| Air Temp (C) | | 21.10 | 22.23 | 21.49 | 23.3 | 21.52 | 22.72 | 21.59 | 23.20 | 19.62 | 24.72 | 22.5 |
| Baro. (mb) | | 1014.0 | 1014.2 | 1014 8 | 1013.5 | 1014 | 1020.2 | 1014.3 | 1016.0 | 1013.9 | 1015.0 | 1018.2 |
| Wind | | SNW 7 | NW 14 | NW 15 | NE 5 | SW 2 | NNE 3 | NNE 7 | NNE 8 | NNE 5 | SE 15 | ENE 4 |
| Cloud | | Ci 2 | Ci 1 | Ci 3 | St 2 | Cc 4 | Cs 9 | Ac 5 | Ss-As 8 | Ac 10 | St 2 | St 2 |
| Weather | | B | B | BC | B | BC | — | BC | BC | C | B | B |

| Month | | 10월 | | | | | | 11월 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| Day | | 30 | 30 | 31 | 31 | 31 | 1 | 1 | 2 | 2 | 3 | 3 |
| Item | Time / Z(m) | 0850 | 1720 | 0010 | 1310 | 2145 | 0350 | 1220 | 0440 | 2010 | 0750 | 1650 |
| T | 0 | 24.39 | 24.02 | 25.00 | 25.80 | 25.83 | 25.40 | 26.02 | 25.73 | 26.10 | 27.45 | 26.83 |
| | 10 | 24.19 | 23.88 | 24.98 | 25.49 | 25.35 | 25.38 | 25.81 | 25.70 | 26.05 | 27.36 | 26.80 |
| | 20 | 24.21 | 23.87 | 24.97 | 25.21 | 25.31 | 25.37 | 25.81 | 25.68 | 26.07 | 27.38 | 26.79 |
| | 30 | 24.21 | 23.81 | 24.93 | 25.21 | 25.29 | 25.37 | 25.81 | 25.67 | 26.07 | 27.36 | 26.79 |
| | 50 | 24.21 | 23.81 | 24.91 | 25.17 | 25.28 | 25.34 | 25.72 | 24.28 | 26.03 | 27.38 | 26.76 |
| | 75 | 24.18 | 23.81 | 21.23 | 25.16 | 21.50 | 21.51 | 25.50 | 21.56 | 21.26 | 26.20 | 24.25 |
| | 100 | 24.21 | 21.50 | 20.17 | 21.74 | 19.62 | 19.40 | 21.31 | 19.20 | 20.24 | 23.64 | 21.50 |
| | 125 | — | — | — | — | — | — | — | — | — | — | — |
| | 150 | 22.32 | 19.76 | 18.69 | 19.29 | 18.33 | 18.22 | 18.34 | 18.32 | 18.57 | 23.10 | 19.18 |
| | 200 | 19.81 | 19.04 | 18.02 | 18.40 | 17.15 | 17.75 | — | 16.50 | 17.83 | 18.26 | 18.07 |
| ℃ | 250 | — | — | 17.50 | — | 17.00 | 17.50 | — | — | 17.60 | — | 17.78 |
| | 300 | 18.35 | 17.52 | 16.98 | 17.45 | 16.57 | 16.82 | — | — | 16.72 | 15.83 | 17.00 |
| | 400 | 15.58 | 15.70 | — | 16.11 | — | — | — | — | — | 14.21 | — |
| | 500 | — | 13.20 | — | 14.99 | — | — | — | — | — | 12.47 | — |
| | Botm | 14.50 | — | — | — | — | — | — | — | — | — | — |
| S | 0 | 34.64 | 34.66 | — | 34.59 | — | — | 34.61 | — | — | 34.85 | — |
| | 10 | 34.65 | 34.66 | — | — | — | — | 34.60 | — | — | 34.87 | — |
| | 20 | 34.64 | 34.65 | — | 34.53 | — | — | 34.60 | — | — | 34.87 | — |
| | 30 | 34.64 | 34.66 | — | 34.54 | — | — | 34.61 | — | — | 34.85 | — |
| | 50 | 34.64 | 34.68 | — | 34.55 | — | — | 34.59 | — | — | 34.85 | — |
| | 75 | 34.65 | 34.68 | — | 34.59 | — | — | 34.61 | — | — | 34.89 | — |
| | 100 | 34.67 | 34.[illegible] | — | 34.82 | — | — | 34.77 | — | — | 34.98 | — |
| | 125 | — | — | — | — | — | — | — | — | — | — | — |
| | 150 | 34.88 | 34.86 | — | 34.85 | — | — | 34.81 | — | — | 34.94 | — |
| | 200 | 34.84 | 34.81 | — | 34.77 | — | — | — | — | — | 34.84 | — |
| ‰ | 250 | — | — | — | — | — | — | — | — | — | — | — |
| | 300 | 34.76 | 34.76 | — | 34.81 | — | — | — | — | — | 34.64 | — |
| | 400 | 34.63 | 34.57 | — | 34.84 | — | — | — | — | — | 34.56 | — |
| | 500 | 34.54 | 34.44 | — | 34.78 | — | — | — | — | — | 34.88 | — |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | 920 | 570 | 972 | 2400 | 1030 | 1260 | 170 | — | 3200 | 520 | 2500 |
| Water Trans. | | 23 | 27 | — | 32 | — | — | 27 | — | — | 26 | — |
| Water Color | | 3 | 2 | — | 2 | — | — | 3 | — | — | 2 | — |
| Wave | | SES 2 | SE 1 | SE 2 | WNW 1 | E 1 | E 3 | ENE 3 | ENE 3 | E 5 | NE 3 | ESE 5 |
| Swell | | SES 4 | SE 2 | SE 2 | WNW 2 | E 3 | E 4 | ENE 2 | EN 4 | E 6 | NE 4 | 6 |
| Air Temp. (°C) | | 23.52 | 22.50 | 21.6 | 25.65 | 22.9 | 24.2 | 28.97 | 24.23 | 26.5 | 26.98 | 27.02 |
| Baro. (mb) | | 1021.0 | 1021.0 | 1021 | 1020.3 | 1022.2 | 1020.5 | 1020.0 | 1020 | 1020 | 1020.0 | 1015.5 |
| Wind | | SES 2 | SES 3 | SE 5 | WNW 3 | ESE 5.5 | E 6.5 | ENE 8 | E 6 | E 9 | NE 9 | E 7 |
| Cloud | | Cu 3 | As 2 | St 3 | St 2 | St 2 | 0 | Cu 3 | As 4 | 0 | Cu 3 | St 4 |
| Weather | | BC | B | BC | B | B | B | BC | BC | B | BC | BC |

| Month | | 11월 | | | | |
|---|---|---|---|---|---|---|
| St. No. | | 23 | 24 | 25 | 26 | 27 |
| Day | | 3 | 4 | 4 | 4 | 4 |
| Item | Time / Z(m) | 2400 | 0630 | 1400 | 1740 | 2400 |
| T ℃ | 0 | 28.02 | 27.76 | 28.50 | 28.37 | 28.23 |
| | 10 | 27.97 | 27.48 | 28.33 | 28.24 | 28.16 |
| | 20 | 27.93 | 27.49 | 28.31 | 28.24 | 28.16 |
| | 30 | 27.93 | 27.45 | 28.27 | 28.24 | 28.15 |
| | 50 | 25.98 | 26.17 | 27.86 | 27.83 | 28.13 |
| | 75 | 24.20 | 24.32 | 22.58 | 24.64 | 26.22 |
| | 100 | 22.37 | 23.54 | 20.42 | — | 23.36 |
| | 125 | — | — | — | — | — |
| | 150 | 19.00 | 20.98 | 19.23 | 21.41 | 18.87 |
| | 200 | 18.21 | 19.27 | — | 19.26 | 17.95 |
| | 250 | 17.63 | — | — | — | 17.18 |
| | 300 | 16.54 | 17.33 | — | 16.73 | 16.00 |
| | 400 | — | 15.26 | — | 14.10 | — |
| | 500 | — | 13.01 | — | 11.77 | — |
| | Botm | — | — | — | — | — |
| S ‰ | 0 | — | 34.78 | — | 34.78 | — |
| | 10 | — | 34.78 | — | 34.77 | — |
| | 20 | — | 34.80 | — | 34.78 | — |
| | 30 | — | 34.80 | — | 34.79 | — |
| | 50 | — | 34.86 | — | 34.76 | — |
| | 75 | — | 35.02 | — | 34.93 | — |
| | 100 | — | 35.01 | — | 35.07 | — |
| | 125 | — | — | — | — | — |
| | 150 | — | 35.01 | — | 35.03 | — |
| | 200 | — | 34.90 | — | 34.84 | — |
| | 250 | — | — | — | — | — |
| | 300 | — | 34.82 | — | 34.72 | — |
| | 400 | — | 34.63 | — | 34.49 | — |
| | 500 | — | 34.84 | — | 35.18 | — |
| | Botm | — | — | — | — | — |
| Depth(m) | | 3800 | 3200 | 1800 | 710 | 1826 |
| Water Trans. | | — | 26 | — | 3 | — |
| Water Color | | — | 2 | — | 2 | — |
| wave | | E 6 | NE 3 | E 3 | NE 2 | E 5 |
| Swell | | E 6 | NE 5 | E 4 | NE 5 | E 6 |
| Air Temp. (°C) | | 28.0 | 27.05 | 31.5 | 28.35 | 27.85 |
| Baro. (mb) | | 1015.5 | 1017 | 1015.0 | 1015.0 | 1014.5 |
| Wind | | E 12 | NE 5 | E 9 | NEE 8 | E 15.3 |
| Cloud | | 0 | As 5 | Cu 2 | As 3 | As 2 |
| Weather | | B | BC | B | BC | B |

11월

| 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|
| 5 | 5 | 6 | 6 | 7 | 16 |
| 0720 | 1400 | 0840 | 1630 | 1820 | 1830 |
| 28.26 | 28.67 | 28.42 | 28.51 | 28.28 | 27.30 |
| 28.11 | 28.62 | 28.30 | 28.49 | 28.19 | 27.21 |
| 28.10 | 28.63 | 28.32 | 28.48 | 28.19 | 27.21 |
| 28.13 | 28.63 | 28.31 | 28.48 | 28.21 | 27.12 |
| 27.30 | 28.58 | 28.31 | 28.42 | — | 27.09 |
| 25.46 | 27.42 | 26.83 | 27.05 | 28.10 | 26.72 |
| 24.66 | 25.58 | 25.67 | 25.53 | 28.11 | — |
| 24.96 | 22.17 | 22.36 | 22.46 | 23.35 | — |
| 22.44 | 19.25 | 19.01 | 18.82 | 19.36 | — |
| — | 16.70 | — | 15.37 | — | — |
| 17.98 | 15.13 | 16.14 | 13.68 | 13.51 | — |
| 16.38 | — | 13.95 | — | 9.35 | — |
| 14.94 | — | 10.48 | — | 8.66 | — |
| — | — | — | — | — | 26.45 |
| 34.65 | — | 34.46 | — | 34.25 | 34.55 |
| 34.66 | — | 34.44 | — | 34.25 | 34.55 |
| 34.65 | — | 34.44 | — | 34.23 | 34.54 |
| 34.65 | — | 34.45 | — | 34.24 | 34.55 |
| 34.90 | — | 34.45 | — | 34.25 | 34.57 |
| 35.04 | — | 34.99 | — | 34.23 | 34.65 |
| 35.13 | — | 35.12 | — | 34.42 | — |
| — | — | — | — | — | — |
| 35.10 | — | 35.13 | — | 34.79 | — |
| 35.09 | — | 35.83 | — | 34.91 | — |
| — | — | — | — | — | — |
| 34.79 | — | 35.75 | — | 34.35 | — |
| 34.74 | — | 35.77 | — | 34.27 | — |
| 34.73 | — | 35.35 | — | 34.70 | — |
| — | — | — | — | — | 34.73 |
| 1360 | 2400 | 1100 | 1460 | 530 | 96 |
| 28 | — | 31 | — | — | — |
| 2 | — | 2 | — | — | — |
| E 4 | E 4 | NE 5 | F 5 | NE 4 | E 2 |
| E 5 | E 6 | NE 6 | E 6 | NE 5 | E 2 |
| 28.50 | 30.12 | 29.42 | 29.03 | 27.20 | 27.88 |
| 1013 | 1012.0 | 1012.5 | 1010.2 | 1011.0 | 1011.5 |
| E 13 | E 8 | NE 10 | E 12 | NE 16 | E 5.2 |
| Cb Cu 6 | Cu 3 | Cu 3 | Cu 2 | Cu 3 | Cu 2 |
| BC R | BC | BC | B | BC | B |

| Monih | | 11월 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
| Day | | 17 | 17 | 17 | 18 | 18 | 18 | 19 | 19 | 19 | 20 | 20 |
| Item | Time / Z(m) | 0440 | 1440 | 2130 | 0540 | 1630 | 2040 | 0520 | 1030 | 1850 | 0150 | 0610 |
| T | 0 | 28.05 | 28.48 | 28.40 | 28.58 | 28.95 | 28.56 | 28.98 | 29.01 | 29.10 | 29.07 | 29.00 |
| | 10 | 28.97 | 28.33 | 28.38 | 28.50 | 28.92 | 28.53 | 28.93 | 28.89 | — | 29.03 | 28.69 |
| | 20 | 28.97 | 28.31 | 28.38 | 28.48 | 28.63 | 28.47 | 28.92 | 28.73 | 28.58 | 29.00 | 28.46 |
| | 30 | 28.95 | 28.30 | 28.36 | 28.45 | 28.52 | 28.45 | 28.90 | 28.63 | 28.56 | 28.97 | 28.47 |
| | 50 | 28.93 | 28.25 | 28.35 | 28.37 | 28.50 | 28.33 | 28.90 | 28.46 | 28.53 | 28.78 | 28.08 |
| | 75 | 25.94 | 28.10 | 28.32 | 25.76 | 27.87 | 26.63 | 28.27 | 26.97 | 27.48 | 27.36 | 27.50 |
| | 100 | 24.40 | 25.97 | 27.75 | 23.95 | 24.63 | 22.48 | 25.50 | 24 72 | 25 19 | 26.13 | 26.79 |
| | 125 | — | — | — | — | — | — | — | — | — | — | — |
| | 150 | 20.05 | 20.06 | 20.65 | 18.67 | 17.65 | 17.06 | 18.52 | 15.15 | 21.88 | 24.53 | 25.05 |
| | 200 | 16.23 | 16.88 | 18.78 | 13.28 | 11.58 | 12.25 | 12.28 | 11.83 | 16.77 | 16.07 | 21.46 |
| ℃ | 250 | 12.22 | — | 16.13 | — | — | — | 10.30 | — | — | 11.05 | — |
| | 300 | 10.20 | 10.67 | 9.74 | 9.24 | 9.50 | 9.73 | 9.76 | 9.15 | 9.99 | 10.02 | 10.44 |
| | 400 | — | 8.82 | — | 8.45 | — | 8.56 | — | 8.09 | 8.68 | — | 9.25 |
| | 500 | — | 7.39 | — | 7.78 | — | 8.53 | — | 7.62 | 7.98 | — | 8.02 |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| S | 0 | — | 34.05 | — | 33.97 | — | 33.76 | — | 33.89 | 34.08 | — | 34.22 |
| | 10 | — | 34.10 | — | 33.95 | — | 33.75 | — | 33.70 | 34.03 | — | 34.19 |
| | 20 | — | 33.99 | — | 33.95 | — | 33.74 | — | 33.91 | 34.03 | — | 34.92 |
| | 30 | — | 34.10 | — | 33.95 | — | 33.74 | — | 33.98 | 34.05 | — | 34.96 |
| | 50 | — | 34.10 | — | 34.00 | — | 33.72 | — | 34.10 | 34.04 | — | 35.11 |
| | 75 | — | 34.25 | — | 34.62 | — | 34.39 | — | 34.26 | 34.29 | — | 34.55 |
| | 100 | — | 34.88 | — | 34.69 | — | 34.65 | — | 34.67 | 34.60 | — | 35.19 |
| | 125 | — | — | — | — | — | — | — | — | — | — | — |
| | 150 | — | 34.93 | — | 34.63 | — | 34.63 | — | 34.55 | 34.68 | — | 35.40 |
| | 200 | — | 34.67 | — | 34.43 | — | 34.49 | — | 34.51 | 34.64 | — | 35.49 |
| ‰ | 260 | — | — | — | — | — | — | — | — | — | — | — |
| | 300 | — | 34.33 | — | 34.58 | — | 34.53 | — | 34.56 | 34.67 | — | 35.31 |
| | 400 | — | 34.43 | — | 34.54 | — | 34.49 | — | 34.55 | 34.76 | — | 34.55 |
| | 500 | — | 34·39 | — | 34.56 | — | 34.53 | — | 34.53 | 34.53 | — | 34.68 |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | 3170 | 4030 | 4860 | 2076 | 3971 | 2500 | 2320 | 2096 | 3201 | — | 3027 |
| Water Trans. | | — | 33 | — | — | — | — | — | 36 | — | — | — |
| Water Color | | — | 2 | — | — | — | — | — | 1 | — | — | — |
| Wave | | SE 4 | NE 3 | E 2 | E 2 | NE 2 | E 2 | NE 2 | NE 2 | SE 1 | S 1 | NE 1 |
| Swell | | SE 3 | NE 4 | E 3 | E 3 | NE 3 | E 3 | NE 2 | NE 2 | SE 1 | S 2 | NE 1 |
| Air Temp. (°C) | | 28.81 | 32.32 | 28.52 | 28.50 | 30.86 | 20.15 | 28.23 | 28.83 | 28.95 | 29.00 | 27.87 |
| Baro. (mb) | | 1012 | 1009.0 | 1011.5 | 1009.0 | 1008.5 | 1010.2 | 1008.5 | 1009.0 | 1009.0 | 1010 | 1010.0 |
| Wind | | SE 62 | NE 7 | E 7 | E 4.3 | NE 2 | E 2.6 | NE 2 | NE 3 | S 3 | S 2 | NE 2 |
| Cloud | | Cu 3 | Cu 3 | Cu 1 | Ac 5 | Cu 4 | As 9 | Cu 3 | Cu 2 | Cu 3 | Cu 5 | As 7 |
| Weather | | BC | BC | B | BC | BC | C | BC | B | BC | BC | BC |

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| 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 20 | 21 | 21 | 21 | 21 | 22 | 22 | 23 | 23 | 23 |
| 1300 | 1910 | 0200 | 0850 | 1500 | 2155 | 0550 | 1920 | 0300 | 0950 | 1500 |
| 29.12 | 29.15 | 29.25 | 29.01 | 29.70 | 29.02 | 29.21 | 29.60 | 29.25 | 29.15 | 29.90 |
| 28.97 | 28.82 | 29.13 | 28.82 | 29.32 | 28.89 | 29.04 | 29.48 | 29.13 | 29.03 | 29.47 |
| 28.69 | 28.68 | 29.00 | 28.76 | 29.03 | 28.83 | 28.91 | 29.37 | 29.09 | 28.90 | 29.00 |
| 28.50 | 28.69 | 28.97 | 28.72 | 28.89 | 28.76 | 28.89 | 29.00 | 29.02 | 28.70 | 29.88 |
| 28.43 | 28.67 | 28.82 | 28.68 | 28.82 | 28.71 | 29.00 | 28.96 | 28.97 | 28.75 | 28.76 |
| 27.82 | 27.59 | 28.65 | 28.60 | 28.75 | 28.71 | 28.91 | 28.96 | 28.85 | 28.68 | 28.72 |
| 26.67 | 26.23 | 28.50 | 28.54 | 28.73 | 25.07 | 28.51 | 28.87 | 28.83 | 28.61 | 22.74 |
| — | — | — | — | — | — | — | — | — | — | — |
| 23.75 | 25.93 | 24.27 | 22.61 | 22.46 | 22.07 | 21.09 | 20.56 | 22.00 | — | 20.18 |
| 20.03 | 23.67 | 22.14 | 20.46 | 18.48 | 16.94 | 16.79 | 17.69 | 17.19 | 18.15 | 17.70 |
| 11.25 | — | 17.00 | — | 14.03 | — | — | 16.00 | 16.13 | — | — |
| 9.50 | 15.33 | 11.02 | 9.90 | 12.00 | 12.53 | 13.54 | 13.62 | 13.77 | 14.30 | 12.40 |
| — | 10.11 | — | 9.19 | — | 9.29 | 9.89 | — | — | 10.57 | — |
| — | 8.24 | — | 8.52 | — | 8.09 | 9.33 | — | — | 8.33 | — |
| — | — | — | — | — | — | — | — | — | — | — |
| — | 34.31 | — | 34.55 | — | 34.52 | 34.41 | — | — | 34.55 | — |
| — | 34.38 | — | 34.55 | — | 34.49 | 34.41 | — | — | 34.36 | — |
| — | 34.84 | — | 34.54 | — | 34.45 | 34.43 | — | — | 34.56 | — |
| — | 34.76 | — | 34.56 | — | 34.46 | 34.48 | — | — | 34.55 | — |
| — | 34.78 | — | 34.55 | — | 34.49 | 34.58 | — | — | 34.58 | — |
| — | — | — | 34.57 | — | 34.61 | 34.64 | — | — | 34.58 | — |
| — | 34.75 | — | 34.91 | — | 35.36 | 35.04 | — | — | 34.82 | — |
| — | — | — | — | — | — | — | — | — | — | — |
| — | 35.05 | — | 35.37 | — | 35.38 | 35.38 | — | — | 35.42 | — |
| — | 35.27 | — | 35.37 | — | 35.01 | 35.21 | — | — | 35.28 | — |
| — | — | — | — | — | — | — | — | — | — | — |
| — | 35.36 | — | 34.56 | — | 34.86 | 34.89 | — | — | 34.95 | — |
| — | 34.53 | — | 34.67 | — | 34.65 | 34.66 | — | — | 34.69 | — |
| — | 34.54 | — | 34.65 | — | 34.60 | 34.63 | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — |
| 4170 | 4020 | 4113 | 4500 | 4026 | 4086 | 4700 | 5300 | 3740 | — | 3480 |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 1 | — | — | — | — | — | — | |
| SE 2 | SE 1 | S 1 | SW 1 | SE 1 | NE 1 | NS 1 | NE 1 | NE 1 | NE 1 | — |
| SE 2 | SE 2 | SE 1 | SW 1 | SE 1 | NE 1 | NS 2 | NE 2 | NE 1 | NE 1 | — |
| 29.08 | 28.40 | 28.87 | 29.00 | 30.03 | 28.10 | 28.10 | 28.9 | 28.5 | 29.92 | 32.8 |
| 1009 | 1010.0 | 1010.5 | 1011.0 | 1010 | 1011.5 | 1011 | 1011.0 | 1010 | 1012.5 | 1.08.5 |
| SE 5.2 | SE 1 | SE 3 | SW 1 | SE 2 | NE 05 | NS 2 | NE 3.2 | NE 3.2 | NE 1.5 | — |
| Cu 8 | Cu 4 | Ac 4 | Cu 3 | Cu 3 | Cu 3 | Cu 3 | Cu 4 | Cu 2 | Cu 2 | St 7 |
| B | BC | BC | BC | BC | BC | BC | BC | BC | B | BC |

| Month | | 11월 | | | | | | | 12월 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 |
| Day | | 23 | 24 | 24 | 25 | 25 | 26 | 26 | 1 | 2 | 2 | 2 |
| Item | Time / Z(m) | 2030 | 1200 | 2000 | 0750 | 1750 | 0200 | 0850 | 1410 | 0830 | 1440 | 2030 |
| T | 0 | 29.65 | 29.75 | 29.42 | 29.20 | 29.26 | 29.12 | 28.81 | 28.50 | 29.15 | 29.52 | 29.20 |
| | 10 | 29.43 | 29.50 | 29.20 | 29.02 | 29.11 | 29.10 | 28.63 | 28.36 | 29.08 | 29.36 | 29.12 |
| | 20 | 29.03 | 29.47 | 28.96 | 28.95 | 29.06 | 29.08 | 28.58 | 28.37 | 29.05 | 29.24 | 29.08 |
| | 30 | 28.91 | 29.38 | 28.88 | 28.89 | 29.02 | 29.05 | 28.55 | 28.35 | 29.01 | 29.17 | 28.95 |
| | 50 | 28.80 | 29.31 | 28.71 | 28.79 | 29.00 | 29.03 | 28.60 | 28.34 | 29.00 | 28.70 | 28.78 |
| | 75 | 28.63 | 29.00 | 27.75 | 28.17 | 28.78 | 29.00 | 25.50 | 26.51 | 28.94 | 28.29 | 28.05 |
| | 100 | 27.46 | 28.37 | 24.13 | 26.59 | — | 28.50 | 21.19 | 20.99 | 28.62 | 27.25 | 26.03 |
| | 125 | — | — | — | — | — | — | — | — | — | — | — |
| | 150 | 22.25 | 24.42 | 22.52 | 23.54 | 20.75 | 20.02 | 13.39 | 19.58 | 23.50 | 24.18 | 22.75 |
| | 200 | 19.49 | 19.79 | 19.97 | 21.86 | 18.43 | 11.62 | 10.50 | 16.05 | 19.47 | 19.50 | 19.76 |
| ℃ | 250 | — | 17.63 | — | — | — | — | — | — | — | — | 16.72 |
| | 300 | 14.51 | 14.37 | 16.79 | 16.09 | 10.10 | 8.68 | 9.00 | 10.58 | 9.18 | 12.27 | 14.50 |
| | 400 | 10.21 | — | 12.29 | 9.32 | — | — | 7.98 | 8.74 | — | — | — |
| | 500 | 8.64 | — | 8.99 | 7.92 | — | — | 7.61 | 8.52 | — | — | — |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| S | 0 | 34.69 | — | 34.41 | 34.50 | — | — | 34.53 | 33.86 | — | — | — |
| | 10 | 34.63 | — | 34.43 | 34.49 | — | — | 34.52 | 33.81 | — | — | — |
| | 20 | 34.66 | — | 34.54 | 34.51 | — | — | 34.06 | 33.97 | — | — | — |
| | 30 | 34.59 | — | 34.60 | 34.03 | — | — | 34.04 | 33.82 | — | — | — |
| | 50 | 34.64 | — | 34.59 | 34.51 | — | — | 34.04 | 33.85 | — | — | — |
| | 75 | 34.60 | — | 34.90 | 34.74 | — | — | 34.04 | 34.38 | — | — | — |
| | 100 | 35.01 | — | 35.29 | 35.18 | — | — | 34.04 | 34.75 | — | — | — |
| | 125 | — | — | — | — | — | — | — | — | — | — | — |
| | 150 | 35.42 | — | 35.20 | 35.37 | — | — | 34.62 | 34.59 | — | — | — |
| | 200 | 35.33 | — | 35.50 | 35.38 | — | — | 34.79 | 34.39 | — | — | — |
| ‰ | 250 | — | — | — | — | — | — | — | — | — | — | — |
| | 300 | 35.10 | — | 34.73 | 35.41 | — | — | 34.54 | 34.53 | — | — | — |
| | 400 | 34.68 | — | 34.47 | 34.58 | — | — | 34.53 | 34.52 | — | — | — |
| | 500 | 34.60 | — | 34.46 | 34.56 | — | — | 34.58 | 34.50 | — | — | — |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | 4760 | 3975 | 2500 | 3500 | 2160 | 3048 | 1100 | 4500 | 5055 | 5010 | 5292 |
| Water Trans. | | — | — | — | 27 | — | — | 29 | 28 | — | 29 | — |
| Water Color | | — | — | — | 3 | — | — | 2 | 2 | — | 2 | — |
| Wave | | SW 1 | — | NE 1 | E 2 | — | ENE 3 | E 3 | E 4 | E 4 | NE 3 | NW 2 |
| Swell | | NW 1 | — | NE 2 | E 2 | — | ENE 4 | E 4 | E 5 | E 5 | NE 4 | NW 2 |
| Air Temp(°C) | | 28.52 | 22.20 | 27.88 | 28.70 | 28.87 | 28.60 | 29.30 | 30.18 | 26.17 | 28.0 | 28.89 |
| Baro.(mb) | | 1010.0 | 1009.0 | 1009.0 | 1009.2 | 1007.2 | 1006.5 | 1009.0 | 1006 | 1008.3 | 1004.9 | 1007.3 |
| Wind | | SW 1 | — | NE 5 | E 4 | NE 4.5 | ENE5.2 | E 6.5 | E 10 | E 5.7 | NE 4 | NW3.2 |
| Cloud | | Cu 2 | As 8 | Cu 3 | Cu 4 | As 10 | Cu 3 | Cu 4 | As 7 | Cb 10 | Cb 10 | Cu 7 |
| Weather | | B | BC | BC | BC | C | BC | BC | BC | C | R | BC |

12월

| 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 6 |
| 0330 | 1040 | 2000 | 0200 | 1000 | 1640 | 2130 | 0320 | 1510 | 2200 | 0430 |
| 29.22 | 29.78 | 29.44 | 29.35 | 29.26 | 29.25 | 29.35 | 29.00 | 28.13 | 28.27 | 28.10 |
| 29.07 | 29.57 | 29.26 | 29.30 | 29.17 | 29.16 | 29.27 | 28.96 | 27.81 | 28.10 | 28.02 |
| 29.00 | 29.48 | 29.32 | 29.26 | 29.13 | 29.65 | 29.15 | 28.94 | 27.81 | 28.13 | 28.00 |
| 28.98 | 29.40 | 29.32 | 29.24 | 29.10 | 29.12 | 29.00 | 27.22 | 27.80 | 27.18 | 27.65 |
| 28.73 | 29.06 | 29.20 | 29.20 | 28.85 | 29.04 | 28.10 | 25.70 | 27.51 | 26 00 | 26.70 |
| 28.62 | 28.55 | 28.84 | 28.87 | 28.40 | 28.68 | 27.16 | 24.63 | 25.27 | 24.05 | 25.17 |
| 27.30 | 25.76 | 28.13 | 28.69 | 25.46 | 28.31 | 25.02 | 24.30 | 22.33 | 23.70 | 24.03 |
| — | — | — | — | — | — | — | — | — | — | — |
| 20.85 | 20.04 | 23.96 | 23.65 | 22.00 | 26.01 | 20.83 | 21.14 | 20.32 | 18.82 | 19.65 |
| 17.54 | 18.25 | 19.34 | 18.74 | 18.75 | 21.39 | 19.89 | 18.93 | 17.56 | 15.48 | 15.21 |
| 16.00 | 15.00 | — | 15.00 | 17.50 | — | 15.80 | 15.02 | — | 13.63 | 11.60 |
| 12.53 | 13.52 | 13.83 | 13.03 | 12.42 | 15.53 | 12.57 | 12.79 | 13.04 | 11.67 | 10.62 |
| — | — | 10.86 | — | — | 12.37 | — | — | 9.43 | — | — |
| — | — | 8.45 | — | — | 10.18 | — | — | 8.24 | — | — |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | 34.41 | — | — | 34.41 | — | — | 34.24 | — | — |
| — | — | 34.41 | — | — | 34.40 | — | — | 34.23 | — | — |
| — | — | 34.42 | — | — | 34.42 | — | — | 34.23 | — | — |
| — | — | 34.42 | — | — | 34.44 | — | — | 34.23 | — | — |
| — | — | 34.46 | — | — | 34.47 | — | — | 34.29 | — | — |
| — | — | 34.65 | — | — | 34.64 | — | — | 35.50 | — | — |
| — | — | 35.10 | — | — | 34.92 | — | — | 34.62 | — | — |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | 35.33 | — | — | 35.35 | — | — | 34.80 | — | — |
| — | — | 35.18 | — | — | 35.34 | — | — | 34.95 | — | — |
| — | — | — | — | — | — | — | — | — | — | — |
| — | — | 34.89 | — | — | 35.02 | — | — | 34.68 | — | — |
| — | — | 34.71 | — | — | 34.77 | — | — | 34.52 | — | — |
| — | — | 34.53 | — | — | 34.62 | — | — | 34.51 | — | — |
| — | — | — | — | — | — | — | — | — | — | — |
| 4930 | 4693 | 4553 | 3930 | 3625 | 4700 | 4230 | 2590 | 1060 | 4630 | 5940 |
| — | — | — | — | — | 23 | — | — | 24 | — | — |
| — | — | — | — | — | 3 | — | — | 3 | — | — |
| NW 3 | W 3 | NW 4 | W 3 | NW 2 | NW 4 | NE 2 | N 5 | N 5 | N 4 | N 4 |
| NW 3 | W 3 | NW 4 | W 4 | NW 2 | NW 4 | NE 3 | N 5 | N 5 | N 5 | N 5 |
| 27.48 | 28.32 | 28.40 | 28.20 | 27.87 | 28.10 | 28.00 | 27.50 | 28.32 | 27.02 | 27.1 |
| 1005.5 | 1007.0 | 1007 | 1006.0 | 1009 | 1008 | 1009.5 | 1010 | 1008 | 1010.2 | 1010 |
| NW 5.1 | W 3 | NW 10 | W 5 | W 2.3 | NW 8 | NE 5.2 | N 12 | N 9.5 | N 9.6 | N 13.2 |
| Cu 4 | Cu 3 | Cu 4 | Cu 3 | Cb 10 | Nb 10 | Cb 10 | As 9 | Cu 6 | Cu 2 | Cu 3 |
| BC | BC | BC | BC | R | R | R | C | BC | B | BC |

| Month | | 12월 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. No. | | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 |
| Day | | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 9 | 9 | 9 |
| Item | Time / (m) | 1015 | 1920 | 0150 | 1330 | 1030 | 0550 | 1600 | 2320 | 0640 | 1130 | 1920 |
| T | 0 | 27.30 | 27.50 | 27.50 | 27.63 | 27.52 | 27.32 | 27.30 | 26.80 | 27.11 | 27.02 | 27.00 |
| | 10 | 27.23 | — | 27.50 | 27.55 | 27.50 | 27.24 | 27.25 | 26.78 | 27.10 | 27.00 | 27.00 |
| | 20 | 27.23 | 27.34 | 27.50 | 27.52 | 27.50 | 27.22 | 27.24 | 26.78 | 27.10 | 27.00 | 27.00 |
| | 30 | 27.20 | 27.35 | 27.50 | 27.50 | 27.50 | 27.22 | 27.24 | 26.78 | 27.10 | 26.98 | 27.00 |
| | 50 | 27.25 | 27.31 | 27.50 | 27.50 | 27.48 | 27.22 | 27.22 | 26.75 | 27.10 | 26.98 | 26.98 |
| | 75 | 27.03 | 25.39 | 27.03 | 27.33 | 27.46 | 27.22 | 27.13 | 26.75 | 27.10 | 26.93 | 26.90 |
| | 100 | 24.50 | 23.70 | 25.02 | 24.12 | 24.73 | 25.31 | 26.25 | 24.57 | 25.52 | 26.88 | 26.79 |
| | 125 | — | — | — | — | — | — | — | — | — | — | — |
| | 150 | 17.39 | 16.22 | 17.47 | 17.15 | 17.97 | 22.56 | 21.02 | 20.46 | 21.55 | 23.42 | 22.00 |
| | 200 | 13.35 | 15.25 | 16.30 | 16.25 | 15.68 | 19.11 | 17.30 | 18.02 | 13.50 | 17.47 | 18.17 |
| ℃ | 250 | 11.50 | — | 13.72 | — | 13.25 | — | 15.17 | 15.72 | 15.89 | 15.16 | 16.62 |
| | 300 | 9.04 | 11.77 | 11.15 | 11.62 | 10.96 | 15.92 | 13.62 | 14.25 | 12.92 | — | 14.75 |
| | 400 | — | 9.12 | — | — | — | 10.55 | — | — | — | — | — |
| | 500 | — | 7.96 | — | — | — | 10.33 | — | — | — | — | — |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| S | 0 | — | 34.31 | — | 34.31 | — | 34.41 | — | — | — | — | — |
| | 10 | — | 34.31 | — | 34.31 | — | 34.44 | — | — | — | — | — |
| | 20 | — | 34.31 | — | — | — | 34.44 | — | — | — | — | — |
| | 30 | — | 34.32 | — | — | — | 34.43 | — | — | — | — | — |
| | 50 | — | 34.33 | — | — | — | 34.43 | — | — | — | — | — |
| | 75 | — | 34.66 | — | — | — | 34.45 | — | — | — | — | — |
| | 100 | — | 34.93 | — | — | — | 34.97 | — | — | — | — | — |
| | 125 | — | — | — | — | — | — | — | — | — | — | — |
| | 150 | — | 34.68 | — | — | — | 34.79 | — | — | — | — | — |
| | 200 | — | 34.49 | — | — | — | 34.56 | — | — | — | — | — |
| ‰ | 250 | — | — | — | — | — | — | — | — | — | — | — |
| | 300 | — | 34.41 | — | — | — | 34.56 | — | — | — | — | — |
| | 400 | — | 34.41 | — | — | — | 34.22 | — | — | — | — | — |
| | 500 | — | 34.47 | — | — | — | 34.23 | — | — | — | — | — |
| | Botm | — | — | — | — | — | — | — | — | — | — | — |
| Depth(m) | | 7357 | 4820 | 4086 | 8930 | 5720 | 6045 | 6640 | 3169 | 5742 | 4020 | 4200 |
| Water Trans. | | — | — | — | — | — | — | — | — | — | — | — |
| Water Color | | — | — | — | — | — | — | — | — | — | — | — |
| Wave | | N 4 | NE 5 | N 3 | N 1 | N 1 | NE 2 | N 5 | N 5 | N 5 | N 6 | N 7 |
| Swell | | N 5 | NE 5 | N 4 | N 3 | N 3 | NE 3 | N 5 | N 6 | N 6 | N 7 | N 7 |
| Air Temp(°C) | | 27.5 | 26.42 | 26.25 | 27.90 | 26.63 | 26.58 | 26.87 | 26.45 | 24.82 | 25.7 | 25.3 |
| Baro. (mb) | | 1011.5 | 1010.2 | 1010.5 | 1011.2 | 1011.5 | 1012.5 | 1012 | 1015.0 | 1015.4 | 1017 | 1018.2 |
| Wind | | N 12 | NE 10 | N 7.2 | N 3 | N 5.2 | NE 5.8 | N 13 | N 13.7 | NE 13 | NNE 12.6 | NE14 |
| Cloud | | Cu 4 | Cu 4 | Cu 4 | Cu 3 | Cu 4 | Cu 2 | As 4 | Cu 4 | Cu 3 | Cs 9 | Cu 5 |
| Weather | | BC | BC | BC | BC | BC | B | BC | BC | BC | C | BC |

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| 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 |
|---|---|---|---|---|---|---|---|---|
| 17 | 17 | 17 | 18 | 19 | 19 | 19 | 20 | 20 |
| 0230 | 0940 | 1500 | 2230 | 0600 | 1230 | 1840 | 0020 | 0750 |
| 23.26 | 23.20 | 22.60 | 21.10 | 20.73 | 19.35 | 20.02 | 20.12 | 19.75 |
| 23.22 | 23.16 | 22.58 | 21.18 | 20.67 | 19.25 | 20.00 | 20.06 | 19.77 |
| 23.22 | 23.23 | 22.58 | 21.24 | 20.65 | 19.37 | 20.02 | 20.09 | 19.72 |
| 23.21 | 23.32 | 22.55 | 21.26 | 20.65 | 19.39 | 19.96 | 20.19 | 19.69 |
| 23.20 | 23.16 | 22.55 | 21.26 | 20.65 | 19.45 | 19.81 | 20.14 | 19.64 |
| 23.20 | — | 22.53 | 21.26 | 20.65 | 19.45 | 19.73 | 20.14 | 19.57 |
| 23.18 | 22.96 | 22.01 | 21 16 | 20.65 | 19.45 | 16.78 | 20.15 | 19.12 |
| — | — | — | — | 20.22 | — | — | — | — |
| 20.21 | 22.17 | 19.50 | — | — | — | — | — | — |
| 18.72 | 19.66 | 18.42 | — | — | — | — | — | — |
| 17.53 | — | 17.48 | — | — | — | — | — | — |
| 16.25 | 16.72 | 16.75 | — | — | — | — | — | — |
| — | 13.85 | — | — | — | — | — | — | — |
| — | 10.28 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | 34.75 | — | 34.68 | — | 34.52 | 34.67 | 34.70 | 34.66 |
| — | 34.77 | — | 34.69 | — | 34.52 | 34.66 | 34.69 | 34.67 |
| — | 34.76 | — | 34.63 | — | 34.52 | 34.66 | 34.68 | 34.68 |
| — | 34.52 | — | 34.69 | — | 34.52 | 34.65 | 34.68 | 34.67 |
| — | 34.75 | — | 34.69 | — | 34.53 | 34.63 | 34.68 | 34.69 |
| — | 34.75 | — | 34.68 | — | 34.52 | 34.61 | 34.67 | 34.67 |
| — | 34.75 | — | 34.67 | — | 34.51 | 34.57 | 34.68 | 34.69 |
| — | — | — | — | — | — | — | — | — |
| — | 34.79 | — | — | — | — | — | — | — |
| — | 34.81 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| — | 34.68 | — | — | — | — | — | — | — |
| — | 34.45 | — | — | — | — | — | — | — |
| — | 34.14 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — |
| 3657 | 3096 | 3016 | 117 | 127 | 1210 | 116 | 130 | 132 |
| — | 21 | — | — | — | 19 | — | — | — |
| — | 4 | — | — | — | 4 | — | — | — |
| NE 2 | N 2 | NE 2 | N 3 | N 3 | NW 3 | NW 3 | W 3 | N 4 |
| N 3 | N 3 | N 3 | N 4 | N 2 | NW 2 | NW 2 | W 2 | N 2 |
| 19.79 | 22.70 | 20.0 | 14.78 | 13.9 | 16.42 | 13.45 | 13.42 | 12.32 |
| 1020 | 1021.5 | 1018.2 | 1012.0 | 1018 | 1018.2 | 1017.5 | 1017.5 | 1015.0 |
| NE 6 | N 3.5 | NE 5 | N 10 | N 7 | NW 6 | NW 6.3 | W 7 | WNW8.1 |
| Cu 2 | Cu 3 | Ac 9 | St 2 | Cu 1 | Cu 2 | Cu 2 | Cu 6 | Ns 10 |
| B | BC | C | B | B | B | B | BC | C |

# 남 지 나 해 해 양 조 사 성 적

# OCEANOGRAPHIC OBSERVATIONS SOUTH CHINA WATERS

1 9 6 7

# 남지나해 해양 관측 위치표

## Position of the South China Oceanographic Obervations

| St. No. | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
|---|---|---|---|---|---|---|---|
| Lat | 31° 52′ 0″ | 30° 23′ 0″ | 28° 38′ 5″ | 25° 00′ 0″ | 24° 10′ 0″ | 22° 16′ 5″ | 14° 00′ 0″ |
| Long | 128° 33′ 0″ | 127° 13′ 0″ | 126° 59′ 0″ | 125° 08′ 0″ | 123° 28′ 0″ | 122° 25′ 0″ | 119° 39′ 0″ |
| St. No. | 08 | 09 | 10 | 11 | 12 | 13 | 14 |
| Lat | 13° 14′ 5″ | 12° 43′ 2″ | 12° 02′ 0″ | 11° 06′ 1″ | 10° 06′ 6″ | 09° 46′ 0″ | 08° 34′ 0″ |
| Long | 117° 49′ 0″ | 115° 48′ 8″ | 114° 06′ 0″ | 112° 12′ 0″ | 112° 12′ 0″ | 110° 18′ 0″ | 109° 12′ 0″ |
| St. No. | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| Lat | 07° 12′ 0″ | 05° 44′ 5″ | 02° 52′ 0″ | 02° 47′ 0″ | 01° 57′ 5″ | 01° 25′ 0″ | 01° 47′ 0″ |
| Long | 108° 21′ 0″ | 107° 12′ 0″ | 104° 36′ 0″ | 104° 34′ 0″ | 104° 38′ 0″ | 105° 12′ 13″ | 108° 19′ 0″ |
| St. No. | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| Lat | 01° 45′ 5″ | 02° 05′ 0″ | 01° 57′ 0″ | 01° 56′ 5″ | 01° 58′ 2″ | 01° 55′ 5″ | 01° 59′ 5″ |
| Long | 108° 42′ 0″ | 110° 08′ 0″ | 110° 31′ 5″ | 110° 30′ 0″ | 109° 57′ 6″ | 110° 25′ 3″ | 110° 53′ 8″ |
| St. No. | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
| Lat | 02° 17′ 5″ | 02° 36′ 2″ | 03° 08′ 8″ | 04° 50′ 2″ | 05° 06′ 2″ | 05° 38′ 9″ | 06° 05′ 1″ |
| Long | 111° 03′ 0″ | 111° 08′ 4″ | 111° 36′ 8″ | 114° 27′ 4″ | 114° 34′ 2″ | 115° 42′ 2″ | 115° 47′ 5″ |
| St. No. | 36 | 37 | 38 | 39 | 40 | 41 | 42 |
| Lat | 06° 58′ 4″ | 06° 20′ 5″ | 05° 40′ 2″ | 04° 20′ 5″ | 02° 27′ 0″ | 02° 14′ 5″ | 02° 02′ 5″ |
| Long | 116° 35′ 7″ | 117° 53′ 3″ | 118° 45′ 9″ | 119° 34′ 0″ | 120° 08′ 7″ | 120° 50′ 5″ | 122° 25′ 0″ |
| St. No. | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
| Lat | 02° 07′ 0″ | 02° 16′ 0″ | 04° 26′ 0″ | 06° 23′ 5″ | 19° 18′ 7″ | 20° 35′ 0″ | 21° 34′ 0″ |
| Long | 123° 04′ 0″ | 124° 01′ 8″ | 123° 18′ 0″ | 122° 28′ 3″ | 120° 35′ 8″ | 120° 56′ 0″ | 121° 09′ 7″ |
| St. No. | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
| Lat | 22° 28′ 8″ | 23° 27′ 1″ | 27° 29′ 0″ | 29° 21′ 0″ | 30° 43′ 0″ | 31° 50′ 5″ | 32° 52′ 0″ |
| Long | 121° 23′ 7″ | 121° 40′ 8″ | 123° 29′ 0″ | 123° 39′ 0″ | 125° 47′ 5″ | 126° 33′ 0″ | 126° 44′ 0″ |

남지나해 해양관측 위치도
Location of the South China
Oceanographic Stations
KOREA
56
1
CHINA
3
52
TAI WAN
6 PHILIPPINE SEA
SOUTH CHINA SEA
PHILIPPINES
10
SULU SEA
15
46
31
40
20
BORNEO
40°
30°
20°
10°
105°
115°
125°
135°

# 남지나해 해양 관측 성적

## Oceanographic Data, Line South China Sea

3월(March) 조사선(Baek Du San) (Remark : The Time is G.M.T.)

| St No. | Date | Time | Depth | Water Color | Waer Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 01 | 1 | 1152 | 286 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weater |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1027.5 | 11.21 | | | | |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 16.73 | 34.79 | 25.43 | 5.72 | 0.084 | 7.30 |
| 10 | 16.69 | 34.78 | 25.43 | 5.64 | 0.056 | 7.80 |
| 20 | 16.59 | 34.78 | 25.45 | 5.62 | 0.182 | 8.09 |
| 30 | 16.41 | 34.76 | 25.48 | 5.59 | 0.196 | 8.21 |
| 50 | 16.39 | 34.75 | 25.49 | 5.52 | 0.336 | 8.22 |
| 75 | 16.07 | 34.74 | 25.57 | 5.49 | 0.280 | 8.12 |
| 100 | 16.17 | 34.75 | 25.52 | 5.41 | 0.378 | 8.01 |
| 125 | 16.08 | 34.73 | 25.54 | 5.23 | 0.440 | 8.03 |
| 150 | 15.90 | 34.71 | 25.55 | 4.95 | 0.490 | 8.05 |
| 200 | 13.14 | 34.58 | 26.05 | 4.45 | 0.560 | 8.04 |
| 250 | 13.14 | 34.57 | 26.05 | 3.90 | 0.548 | 8.03 |
| Botm. | 13.14 | 34.57 | 26.07 | 3.52 | 0.518 | 8.03 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 02 | 2 | 1020 | 107 | 3 | 7 | E 1 | |

| Wind | | Baro. | Air Tmp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1027.6 | 17.9 | | Ci | 2 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | C | ‰ | g/L | cc/L | μg-at./L | |
| 0 | 17.27 | 34.80 | 25.32 | 5.74 | 0.070 | 8.16 |
| 10 | 17.11 | 34.82 | 25.36 | 5.72 | 0.126 | 8.20 |
| 20 | 16.27 | 34.77 | 25.49 | 5.61 | 0.140 | 8.08 |
| 30 | 16.05 | 34.79 | 25.56 | 5.59 | 0.266 | 7.92 |
| 50 | 15.86 | 34.79 | 25.64 | 5.42 | 0.238 | 8.11 |
| 75 | 15.75 | 34.78 | 25.65 | 5.53 | 0.252 | 7.90 |
| 100 | 15.58 | 34.78 | 25.68 | 5.51 | 0.275 | 7.95 |
| Botm. | 15.57 | 34.78 | 25.68 | 5.51 | 0.280 | 7.97 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 03 | 2 | 1355 | 115 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 4 | 125.4 | 18.90 | | | | |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 17.85 | 34.87 | 25.22 | 5.51 | 0.266 | 7.90 |
| 10 | 17.81 | 34.90 | 25.27 | 5.51 | 0.140 | 7.89 |
| 20 | 16.88 | 34.89 | 25.47 | 5.50 | 0.210 | 8.21 |
| 30 | 16.29 | 34.90 | 25.63 | 5.51 | 0.210 | 8.20 |
| 50 | 15.88 | 34.90 | 25.71 | 5.41 | 0.168 | 8.20 |
| 75 | 15.70 | 34.91 | 25.76 | 5.45 | 0.294 | 8.10 |
| 100 | 16.30 | 34.91 | 25.65 | 5.42 | 0.284 | 8.03 |
| Botm. | 16.69 | 34.91 | 25.53 | 5.40 | 0.280 | 8.01 |

| St No. | Date | Time | Depth | Water Color | Water Trans | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 04 | 3 | 2340 | 130 | 3 | 12 | SSE 3 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 4 | 1016.0 | 23.10 | | Ci | 3 | BC |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 20.90 | 34.87 | 24.43 | 5.30 | 0.224 | 8.01 |
| 10 | 20.90 | 34.89 | 24.44 | 5.11 | 0.266 | 8.16 |
| 20 | 20.88 | 34.89 | 24.44 | 5.09 | 0.280 | 8.22 |
| 30 | 20.91 | 34.88 | 24.43 | 5.07 | 0.294 | 8.25 |
| 50 | 20.88 | 34.90 | 24.46 | 5.08 | 0.336 | 8.00 |
| 75 | 20.92 | 34.90 | 24.44 | 5.06 | 0.308 | 7.81 |
| 100 | 20.70 | 34.91 | 24.51 | 5.00 | 0.434 | 7.81 |
| Botm. | 20.68 | 34.91 | 24.52 | 4.98 | 0.642 | 7.82 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 05 | 7 | 0955 | 260 | 3 | 11 | SW 4 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1025.0 | 16.60 | | Cu | 10 | C |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 22.78 | 34.77 | 23.84 | 4.88 | 0.140 | 7.92 |
| 10 | 22.86 | 34.77 | 23.82 | 4.88 | 0.154 | 7.90 |
| 20 | 22.94 | 34.74 | 23.79 | 4.86 | 0.336 | 7.82 |
| 30 | 22.93 | 34.79 | 23.82 | 4.89 | 0.364 | 7.89 |
| 50 | 22.90 | 34.77 | 23.79 | 4.85 | 0.558 | 7.82 |
| 75 | 21.85 | 34.87 | 34.18 | 4.40 | 0.589 | 7.96 |
| 100 | 21.15 | 34.91 | 24.41 | 4.45 | 0.580 | 7.91 |
| 125 | 20.30 | 34.92 | 24.66 | 4.37 | 0.580 | 7.88 |
| 150 | 19.32 | 34.90 | 24.90 | 4.29 | 0.621 | 7.84 |
| 181 | 18.54 | 34.90 | 25.08 | 4.27 | 0.658 | 7.78 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 06 | 7 | 2020 | | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 6 | 1022.5 | 25.70 | | Cu | 10 | C |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 21.89 | 34.92 | 24.19 | 4.86 | 0.378 | 7.69 |
| 10 | 22.46 | 34.82 | 23.96 | 4.88 | 0.406 | 7.70 |
| 20 | 22.50 | 34.80 | 23.96 | 4.98 | 0.351 | 7.70 |
| 30 | 22.40 | 34.87 | 23.98 | 4.87 | 0.421 | 8.00 |
| 50 | 21.85 | 34.88 | 24.18 | 4.78 | 0.435 | 8.15 |
| 75 | 21.92 | 34.89 | 24.18 | 4.78 | 0.433 | 8.19 |
| 100 | 21.90 | 34.90 | 24.20 | 4.89 | 0.421 | 8.05 |
| 125 | 21.39 | 34.87 | 24.33 | 4.70 | 0.545 | 7.79 |
| 150 | 21.00 | 34.89 | 24.44 | 4.67 | 0.462 | 7.80 |
| 200 | 19.80 | 34.82 | 24.72 | 4.55 | 0.462 | 7.70 |
| 233 | 18.47 | 34.71 | 24.93 | 4.43 | 0.462 | 7.50 |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 07 | 14 | 1625 | | | | W 1 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1011.5 | 25.89 | | | 0 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.42 | 34.05 | 22.22 | 4.68 | 0.140 | 7.70 |
| 10 | 26.55 | 33.78 | 21.95 | 4.71 | 0.336 | 7.70 |
| 20 | 26.51 | 33.76 | 21.96 | 4.70 | 0.462 | 7.64 |
| 30 | 26.53 | 33.77 | 21.92 | 4.64 | 0.448 | 7.53 |
| 50 | 26.41 | 33.75 | 21.93 | 4.65 | 0.473 | 7.50 |
| 75 | 25.00 | 33.95 | 22.57 | 4.44 | 0.491 | 7.48 |
| 100 | 23.68 | 34.25 | 23.19 | 3.49 | 0.516 | 7.60 |
| 125 | 20.51 | 34.49 | 24.26 | 2.98 | 0.446 | 7.52 |
| 150 | 18.00 | 34.68 | 24.98 | 2.90 | 0.484 | 7.49 |
| 200 | 15.00 | 34.61 | 25.21 | 2.70 | 0.528 | 7.66 |
| 250 | 12.93 | 34.56 | 26.10 | 2.47 | 0.550 | 7.80 |
| 300 | 11.35 | 34.52 | 26.37 | 2.44 | 0.570 | 7.64 |
| 400 | 9.21 | 34.50 | 26.73 | 2.35 | 0.539 | 7.67 |
| 410 | 9.08 | 34.47 | 26.70 | 2.31 | 0.518 | 7.70 |

| St No. | Date | Time | Depth | Water Color | water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 08 | 15 | 0400 | | 2 | 20 | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ENE | 3 | 1012.2 | 31.72 | | Ci | 0 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 26.78 | 33.42 | 22.38 | 5.22 | 0.196 | 8.10 |
| 10 | 26.74 | 33.42 | 22.38 | 4.68 | 0.280 | 8.00 |
| 20 | 26.73 | 33.42 | 22.63 | 4.66 | 0.500 | 7.80 |
| 30 | 26.68 | 33.42 | 22.65 | 4.64 | 0.463 | 7.80 |
| 50 | 26.30 | 33.70 | 22.98 | 4.61 | 0.563 | 7.75 |
| 76 | 24.00 | 34.16 | 23.03 | 3.60 | 0.600 | 7.80 |
| 100 | 21.28 | 34.49 | 23.94 | 2.68 | 1.102 | 7.75 |
| 125 | 17.80 | 34.60 | 25.05 | 2.50 | 1.131 | 7.80 |
| 150 | 16.38 | 34.62 | 25.40 | 2.54 | 1.126 | 7.82 |
| 200 | 15.05 | 34.66 | 25.39 | 2.56 | 1.116 | 7.77 |
| 250 | 13.50 | 34.60 | 25.61 | 2.53 | 1.130 | 7.64 |
| 300 | 11.20 | 34.52 | 26.04 | 2.47 | 1.161 | 7.51 |
| 378 | 9.09 | 34.48 | 26.71 | 2.23 | 0.966 | 7.47 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 09 | 15 | 1615 | | | | W 1 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1012.1 | 26.39 | | | 0 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$ P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.49 | 33.18 | 21.42 | 5.78 | 0.140 | 7.51 |
| 10 | 26.18 | 33.17 | 21.51 | 5.11 | 0.182 | 7.60 |
| 20 | 26.50 | 33.16 | 21.42 | 4.81 | 0.224 | 7.65 |
| 30 | 26.39 | 33.16 | 21.58 | 4.76 | 0.294 | 7.51 |
| 50 | 26.00 | 33.86 | 22.19 | 4.65 | 0.253 | 8.00 |
| 75 | 23.45 | 34.46 | 23.42 | 4.63 | 0.210 | 7.79 |
| 100 | 20.80 | 34.55 | 24.24 | 4.64 | 0.280 | 7.70 |
| 125 | 18.18 | 34.60 | 24.95 | 4.68 | 0.316 | 7.84 |
| 150 | 16.70 | 34.63 | 25.32 | 4.71 | 0.320 | 7.90 |
| 200 | 14.50 | 34.69 | 25.84 | 4.64 | 0.338 | 7.30 |
| 250 | 12.90 | 34.56 | 26.11 | 4.36 | 0.371 | 7.24 |
| 300 | 11.79 | 34.53 | 26.23 | 3.96 | 0.392 | 7.25 |
| 400 | 9.60 | 34.49 | 26.64 | 2.27 | 0.389 | 7.29 |
| 487 | 8.54 | 34.48 | 26.80 | 2.00 | 0.364 | 7.41 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 10 | 15 | 0415 | | 2 | 25 | W 1 | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1011.9 | 30.22 | | Ac | 4 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$ P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.84 | 33.29 | 21.39 | 4.56 | 0.192 | 7.70 |
| 10 | 26.72 | 33.18 | 21.37 | 4.74 | 0.168 | 7.71 |
| 20 | 26.67 | 33.17 | 21.38 | 4.58 | 0.154 | 8.00 |
| 30 | 26.63 | 33.18 | 21.49 | 4.56 | 0.210 | 8.06 |
| 50 | 26.62 | 33.23 | 21.53 | 4.51 | 0.311 | 7.80 |
| 75 | 21.82 | 34.32 | 23.78 | 3.13 | 0.368 | 7.81 |
| 100 | 19.03 | 34.54 | 24.67 | 2.66 | 0.405 | 7.91 |
| 125 | 17.55 | 34.60 | 25.08 | 2.56 | 0.418 | 7.80 |
| 150 | 16.30 | 34.61 | 25.39 | 2.47 | 0.420 | 7.68 |
| 200 | 14.30 | 34.60 | 25.81 | 2.32 | 0.450 | 7.59 |
| 250 | 12.85 | 34.56 | 26.12 | 2.35 | 0.460 | 7.51 |
| 300 | 11.80 | 34.55 | 26.29 | 2.40 | 1.464 | 7.55 |
| 400 | 9.98 | 34.48 | 26.57 | 2.27 | 0.440 | 7.54 |
| 481 | 7.75 | 34.47 | 26.92 | 2.04 | 0.434 | 7.88 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 11 | 16 | 1615 | | | | SW 2 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1011.5 | 26.18 | | | | |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.32 | 33.22 | 21.36 | 4.74 | 0.280 | 8.00 |
| 10 | 26.33 | 33.16 | 21.58 | 4.79 | 0.266 | 8.20 |
| 20 | 26.27 | 33.20 | 21.61 | 4.75 | 0.456 | 7.99 |
| 30 | 26.17 | 33.19 | 21.65 | 4.77 | 0.549 | 7.90 |
| 50 | 26.05 | 33.18 | 21.67 | 4.74 | 0.558 | 7.99 |
| 75 | 21.61 | 34.28 | 23.77 | 3.50 | 0.526 | 8.05 |
| 100 | 18.32 | 34.48 | 24.81 | 3.25 | 0.559 | 8.12 |
| 125 | 16.55 | 34.59 | 25.32 | 2.80 | 0.621 | 7.83 |
| 150 | 15.50 | 34.58 | 25.56 | 2.74 | 0.608 | 7.78 |
| 200 | 13.80 | 34.48 | 25.87 | 2.76 | 0.599 | 7.79 |
| 250 | 12.24 | 34.51 | 26.18 | 2.72 | 0.732 | 7.80 |
| 300 | 10.75 | 34.51 | 26.48 | 2.44 | 0.928 | 7.85 |
| 400 | 9.22 | 34.48 | 26.70 | 1.99 | 1.010 | 7.81 |
| 449 | 8.66 | 34.48 | 26.78 | 1.91 | 1.008 | 7.72 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 12 | 16 | 2355 | | 2 | 24 | NW 1 | 0 |

| Wind | | Bcro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1010.5 | 26.48 | | Cu | 3 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.18 | — | — | — | — | — |
| 10 | 26.23 | — | — | — | — | — |
| 20 | 26.19 | — | — | — | — | — |
| 30 | 26.08 | — | — | — | — | — |
| 50 | 25.93 | 33.21 | 21.74 | 4.80 | 0.140 | — |
| 75 | 21.91 | 33.80 | 23.36 | 4.46 | 0.179 | — |
| 100 | 18.35 | 34.25 | 24.64 | 4.00 | 0.261 | — |
| 125 | 16.50 | 34.45 | 25.24 | 3.44 | 0.392 | — |
| 150 | 15.05 | 34.58 | 25.64 | 2.78 | 0.581 | 7.85 |
| 200 | 13.46 | 34.56 | 25.99 | 2.32 | 0.700 | 7.60 |
| 250 | 12.31 | 34.54 | 26.20 | 2.37 | 0.679 | 7.56 |
| 300 | 11.25 | 34.52 | 26.38 | 2.40 | 0.695 | 7.55 |
| 400 | 9.06 | 34.40 | 26.72 | 2.29 | 0.619 | 7.53 |
| 476 | 7.98 | 34.49 | 26.91 | 2.13 | 0.490 | 7.81 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 13 | 17 | 1018 | | 2 | 23 | NW 1 | W 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 1 | 1009.0 | 26.88 | | Ac | 3 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.59 | 33.24 | 21.54 | 4.77 | 0.168 | 7.75 |
| 10 | 26.40 | 33.22 | 21.58 | 4.88 | 0.140 | 7.75 |
| 20 | 26.28 | 33.21 | 21.61 | 4.71 | 0.154 | 7.81 |
| 30 | 26.11 | 33.23 | 21.70 | 4.65 | 0.211 | 7.82 |
| 50 | 25.52 | 33.46 | 22.05 | 4.60 | 0.185 | 7.95 |
| 75 | 23.91 | 33.93 | 22.89 | 4.53 | 0.280 | 7.91 |
| 100 | 19.38 | 34.52 | 24.57 | 3.00 | 0.305 | 7.87 |
| 125 | 19.50 | 34.59 | 25.11 | 2.86 | 0.370 | 7.75 |
| 150 | 16.04 | 34.62 | 25.45 | 2.76 | 0.469 | 7.67 |
| 200 | 13.72 | 34.58 | 25.95 | 2.66 | 0.689 | 7.71 |
| 250 | 12.10 | 34.54 | 26.24 | 2.18 | 0.780 | 7.85 |
| 300 | 11.29 | 34.50 | 26.35 | 1.91 | 0.821 | 7.90 |
| 400 | 9.70 | 34.50 | 26.62 | 2.20 | 0.843 | 7.58 |
| 476 | 8.77 | 34.48 | 26.77 | 2.22 | 0.938 | 7.45 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 14 | 17 | 2210 | 223 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SE | 2 | 1009.5 | 25.30 | | Ac | 3 | Bc |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 26.19 | 33.31 | 21.73 | 5.00 | 0 | 7.60 |
| 10 | 26.11 | 33.29 | 21.74 | 4.66 | 0.014 | 7.69 |
| 20 | 26.00 | 33.31 | 21.80 | 4.77 | 0.014 | 7.80 |
| 30 | 25.73 | 33.33 | 21.87 | 4.66 | 0.070 | 7.75 |
| 50 | 25.06 | 33.59 | 22.28 | 4.77 | 0.056 | 7.65 |
| 75 | 22.18 | 34.22 | 23.59 | 4.96 | 0.056 | 7.65 |
| 100 | 19.98 | 34.30 | 24.20 | 4.84 | 0.140 | 7.65 |
| 125 | 19.46 | 34.41 | 24.48 | 4.08 | 0.149 | 7.64 |
| 150 | 18.37 | 34.51 | 24.89 | 3.29 | 0.154 | 7.62 |
| 200 | 15.75 | 34.62 | 25.62 | 3.24 | 0.203 | 7.55 |
| Botm. | 14.90 | 34.64 | 25.73 | 3.07 | 0.238 | 7.50 |

| St. No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 15 | 18 | 1125 | | | | E 1 | W 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1008.5 | 26.50 | | Ci | 1 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 26.59 | 33.44 | 22.38 | 4.98 | 0.070 | 102.9 |
| 10 | 25.57 | 33.45 | 22.73 | 4.88 | 0.098 | 99.2 |
| 20 | 25.07 | 33.47 | 22.16 | 4.98 | 0.084 | 100.4 |
| 30 | 25.09 | 33.48 | 22.19 | 4.79 | 0.098 | 96.6 |
| 50 | 24.33 | 33.60 | 22.39 | 4.75 | 0.126 | 94.1 |
| Botm. | 22.80 | 34.06 | 23.30 | 4.73 | 0.182 | 90.6 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 16 | 18 | 2354 | 54 | 3 | 26 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1009.0 | 26.50 | | | 0 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.20 | 33.38 | 21.77 | 5.17 | 0.098 | 7.99 |
| 10 | 26.20 | 33.36 | 21.76 | 5.08 | 0.126 | 7.87 |
| 20 | 25.67 | 33.43 | 21.98 | 4.96 | 0.182 | 7.82 |
| 30 | 25.57 | 33.45 | 22.03 | 4.75 | 0.140 | 7.89 |
| Botm. | 25.30 | 33.57 | 22.20 | 4.77 | 0.280 | 7.82 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 17 | 20 | 0300 | 60 | 2 | 27 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1010.0 | 27.88 | | Cc | 3 | Bc |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 27.23 | 32.84 | 21.07 | 4.66 | 0.014 | 7.79 |
| 10 | 26.53 | 33.18 | 21.52 | 4.70 | 0.154 | 7.77 |
| 20 | 26.58 | 33.37 | 21.65 | 4.66 | 0.140 | 7.65 |
| 30 | 26.32 | 33.41 | 21.78 | 4.70 | 0.168 | 7.61 |
| 50 | 26.32 | 33.42 | 22.54 | 4.64 | 0.154 | 7.62 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 18 | 20 | 0612 | 64 | 2 | 23 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1009.0 | 27.60 | | Cc | 1 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 27.74 | 32.71 | 20.78 | 4.79 | 0.014 | 7.71 |
| 10 | 26.84 | 33.21 | 21.48 | 4.68 | 0.014 | 7.72 |
| 20 | 26.50 | 33.41 | 21.74 | 4.74 | 0.140 | 7.70 |
| 30 | 26.45 | 33.51 | 21.81 | 4.80 | 0.098 | 7.71 |
| 50 | 36.39 | 33.47 | 21.77 | 4.79 | 0 070 | 7 75 |
| Botm | 26.38 | 33.48 | 21.81 | 4.64 | 0.112 | 7.91 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 19 | 20 | 1205 | 43 | 2 | 20 | 0 | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1006.0 | 27.23 | | | 0 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 27.35 | 32.37 | 20.73 | 4.72 | 0.084 | 7.92 |
| 10 | 27.19 | 32.47 | 20.79 | 4.77 | 0.182 | 7.90 |
| 20 | 26.93 | 32.56 | 20.94 | 4.34 | 0.476 | 7.79 |
| 30 | 26.80 | 32.74 | 21.11 | 4.26 | 0.182 | 7.65 |
| Botm. | 26.79 | 32.76 | 21.12 | 3.39 | 0.154 | 7.69 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 20 | 25 | 1302 | 47 | | | SW 1 | E 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1008.6 | 26.88 | | Cu | 4 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 27.54 | 32.75 | 20.88 | 4.69 | 0.084 | 7.71 |
| 10 | 27.49 | 32.72 | 20.87 | 4.66 | 0.070 | 7.79 |
| 20 | 27.07 | 33.05 | 21.27 | 4.66 | 0.056 | 7.69 |
| 30 | 26.93 | 33.26 | 21.45 | 4.61 | 0.098 | 7.70 |
| Botm. | 26.94 | 33.26 | 21.46 | 4.45 | 0.149 | 7.68 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 21 | 26 | 0813 | 56 | 4 | 17 | SW 2 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1006.0 | 27.42 | | Cc | 6 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 27.71 | 32.88 | 20.97 | 4.86 | 0 | 7.72 |
| 10 | 27.36 | 32.93 | 21.07 | 4.77 | 0 | 7.70 |
| 20 | 27.00 | 33.15 | 21.35 | 4.69 | 0.060 | 7.70 |
| 30 | 26.72 | 33.36 | 21.62 | 4.63 | 0.071 | 7.93 |
| Botm. | 26.72 | 33.38 | 21.62 | 4.55 | 0.098 | 8.10 |

| St No. | Date | Time | Depth | Water Cotor | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 22 | 26 | 1325 | 35 | | | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1008.5 | 27.42 | | | | |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 27.69 | 32.28 | 20.47 | 4.88 | 0.014 | 7.90 |
| 10 | 27.61 | 32.30 | 20.50 | 4.78 | 0.070 | 8.10 |
| 20 | 26.96 | 33.09 | 21.30 | 4.66 | 0.196 | 7.80 |
| Botm. | 26.94 | 33.14 | 21.36 | 4.56 | 0.168 | 7.75 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 23 | 27 | 0816 | 25 | 4 | 17 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1009.5 | 27.25 | | Ac | 8 | C |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 27.62 | 32.18 | 20.41 | 4.76 | 0.014 | 7.70 |
| 10 | 27.62 | 32.15 | 20.40 | 4.65 | 0.168 | 7.72 |
| Botm. | 26.96 | 32.84 | 21.12 | 4.66 | 0.308 | 7.81 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 24 | 30 | 0210 | 24 | 7 | 4.5 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1009.0 | 28.80 | | Ac | 6 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 28.49 | 28.22 | 17.17 | 4.72 | 0.070 | 7.80 |
| 10 | 27.49 | 32.21 | 20.64 | 4.64 | 0.196 | 8.61 |
| Botm. | 26.29 | 33.24 | 21.63 | 3.87 | 0.154 | 8.60 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 25 | 30 | 0415 | 32 | 7 | 3.8 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 1 | 1009.0 | 29.07 | | Ac | 6 | Bc |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 29.34 | 28.08 | 16 79 | 5.08 | 0.042 | 8.32 |
| 10 | 28.00 | 31.80 | 19.57 | 4.76 | 0.168 | 8.30 |
| 20 | 26.45 | 33.12 | 21.50 | 3.98 | 0.098 | 8.60 |
| Botm. | 27.27 | 33.29 | 21.36 | 3.96 | 0.154 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 26 | 30 | 1150 | 27 | 4 | 11 | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1004.9 | 27.80 | | Cc | 8 | C |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 29.60 | 29.55 | 17.80 | 4.67 | 0.084 | 8.00 |
| 10 | 28.19 | 31.69 | 19.85 | 4.70 | 0.154 | 8.00 |
| 20 | 27.10 | 32.64 | 20.93 | 4.55 | 0.140 | 7.91 |
| Botm. | 27.09 | 32.72 | 20.99 | 4.50 | 0.238 | 7.90 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 27 | 30 | 1435 | 24 | | | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 1 | 1006.9 | 28.59 | | | | |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 27.39 | 28.53 | 17.12 | 4.73 | 0.070 | 8.01 |
| 10 | 27.17 | 32.37 | 20.76 | 4.43 | 0.098 | 8.02 |
| Botm. | 26.51 | 33.11 | 21.47 | 3.70 | 0.154 | 7.90 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 28 | 31 | 0545 | 25 | 5 | 8 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1007.6 | 30.52 | | Cu | 7 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 30.12 | 29.76 | 17.87 | 4.73 | 0.042 | 7.95 |
| 10 | 27.49 | 31.02 | 19.61 | 4.75 | 0.140 | 8.04 |
| Botm. | 26 57 | 33.12 | 21.44 | 3.87 | 0.518 | 8.01 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 29 | 31 | 1226 | 30 | | | SSW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 2 | 1005.5 | 28.27 | | W | 4 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 29.30 | 29.03 | 17.51 | 4.73 | 0.042 | 7.91 |
| 10 | 27.27 | 32.28 | 20.59 | 4.58 | 0.098 | 7.82 |
| 20 | 26.52 | 33.11 | 21.47 | 3.98 | 0.154 | 7.60 |
| Botm. | 26.53 | 33.01 | 21.39 | 3.67 | 0.140 | 7.61 |

4월(April)　　조사선(Baek Du San)　(Remark : The Time is G.M.T)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Water | Swell |
|---|---|---|---|---|---|---|---|
| 30 | 1 | 0430 | 30 | 7 | 4.2 | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | | | | | | |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 28.32 | 31.39 | 19.61 | 4.65 | 0.014 | 7.75 |
| 10 | 26.78 | 32.93 | 21.24 | 3.74 | 0.140 | 7.71 |
| 20 | 26.65 | 33.02 | 21.36 | 3.71 | 0.154 | 7.69 |
| Botm. | 26.59 | 33.03 | 21.39 | 3.66 | 0.198 | 7.68 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 31 | 1 | 1215 | 28 | 6 | 4.1 | SW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 1 | 1005.4 | 28.42 | | St | 7 | Bc |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 30.06 | 30.82 | 18.60 | 4.51 | 0.070 | 7.62 |
| 10 | 26.36 | 32.96 | 21.38 | 4.27 | 0.140 | 7.85 |
| 20 | 26.32 | 33.24 | 21.62 | 4.26 | 0.168 | 7.65 |
| Botm. | 26.30 | 33.25 | 21.65 | 4.30 | 0.154 | 7.90 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 32 | 3 | 0349 | 32 | 5 | 8.5 | S 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 1 | 1009.3 | 31.32 | | Cu | 8 | C |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$ P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 29.14 | 30.55 | 18.71 | 4.82 | 0.098 | 7.79 |
| 10 | 27.00 | 33.16 | 21.34 | 4.80 | 0.126 | 7.80 |
| 20 | 25.08 | 33.50 | 22.18 | 4.37 | 0.238 | 7.65 |
| Botm. | 24.96 | 33.54 | 22.27 | 4.26 | 0.350 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 33 | 3 | 0814 | 39 | 4 | 16 | S 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 2 | 1006.1 | 29.69 | | Cu | 8 | C |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 28.88 | 32.82 | 20.48 | 4.91 | 0.014 | 7.90 |
| 10 | 26.65 | 33.28 | 21.53 | 4.76 | 0.126 | 7.61 |
| 20 | 25.04 | 33.50 | 22.18 | 4.73 | 0.098 | 7.59 |
| 30 | 24.99 | 33.53 | 22.26 | 4.34 | 0.196 | 7.60 |
| Botm. | 24.94 | 33.54 | 22.31 | 4.11 | 0.294 | 7.62 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 34 | 9 | 0920 | 21 | 5 | 11 | S 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNW | 1 | 1006.9 | 29.91 | | St | 5 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 28.98 | 32.94 | 21.68 | 4.73 | 0.070 | 7.72 |
| 10 | 27.02 | 33.50 | 21.59 | 4.95 | 0.098 | 7.79 |
| Botm. | 26.16 | 33.73 | 22.06 | 4.65 | 0.280 | 7.71 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 35 | 10 | 1028 | 44 | 5 | 10 | S 1 | S 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 2 | 1006.1 | 29.62 | | St | 4 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 28.99 | 33.27 | 20.76 | 4.84 | 0.028 | 7.61 |
| 10 | 27.51 | 33.64 | 21.56 | 4.67 | 0.084 | 7.78 |
| 20 | 26.09 | 33.70 | 22.03 | 4.46 | 0.042 | 7.81 |
| 30 | 25.72 | 33.72 | 22.25 | 4.11 | 0.112 | 7.79 |
| Botm. | 24.94 | 33.80 | 22.45 | 3.66 | 0.098 | 7.70 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 36 | 15 | 1041 | 36 | 5 | | SW 2 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 3 | 1006.6 | 28.5 | | St | 3 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.59 | 33.85 | 21.93 | 4.81 | 0.070 | 7.79 |
| 10 | 26.40 | 33.83 | 22.05 | 4.95 | 0.140 | 7.79 |
| 20 | 25.28 | 33.84 | 22.41 | 4.84 | 0.112 | 7.75 |
| Botm. | 24.92 | 33.91 | 22.57 | 4.09 | 0.154 | 7.65 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 37 | 18 | 1125 | 16 | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1010.0 | 27.97 | | | 10 | C |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 29.47 | 31.92 | 19.61 | 4.69 | 0 | 7.57 |
| 10 | 27.86 | 33.92 | 21.88 | 4.74 | 0.056 | 7.61 |
| Botm. | 26.58 | 34.22 | 22.27 | 3.87 | 0.154 | 7.75 |

| St No. | Date | Time | Depth | Water Color | Watar Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 38 | 22 | 0947 | 23 | 5 | 6 | WNW 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| ESE | 1 | 1007.5 | 29.34 | | Cu | 6 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 29.45 | 33.16 | 20.54 | 4.81 | 0 | 7.87 |
| 10 | 27.78 | 33.88 | 21.27 | 4.79 | 0.154 | 7.92 |
| Botm. | 26.98 | 34.01 | 21.98 | 4.72 | 0.294 | 8.01 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 39 | 22 | 2330 | | 2 | 35 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1009.1 | 28.68 | | St | 4 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 29.08 | 33.45 | 20.88 | 4.84 | 0.070 | 7.91 |
| 10 | 29.09 | 33.44 | 20.87 | 4.79 | 0.196 | 7.99 |
| 20 | 29.18 | 33.48 | 20.88 | 4.65 | 0.154 | 8.00 |
| 30 | 28.79 | 33.90 | 21.34 | 4.62 | 0.332 | 8.01 |
| 50 | 26.92 | 34.23 | 22.18 | 4.64 | 0.251 | 7.97 |
| 75 | 24.55 | 34.57 | 23.18 | 4.41 | 0.196 | 8.12 |
| 100 | 21.73 | 34.71 | 24.10 | 4.27 | 0.235 | 7.96 |
| 125 | 22.30 | 34.73 | 23.96 | 4.16 | 0.228 | 7.83 |
| 150 | 21.93 | 34.56 | 23.93 | 4.09 | 0.289 | 7.82 |
| 200 | 19.11 | 34.28 | 24.45 | 3.84 | 0.544 | 7.89 |
| 250 | 15.46 | 34.52 | 25.52 | 3.24 | 0.700 | 7.90 |
| 300 | 12.65 | 34.53 | 26.13 | 2.53 | 0.883 | 7.87 |
| 400 | 8.83 | 34.46 | 26.75 | 2.26 | 1.318 | 7.86 |
| 453 | 8.35 | 34.53 | 26.88 | 2.25 | 1.400 | 7.92 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 40 | 23 | 1414 | | | | | |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1008.6 | 28.04 | | St | 3 | Bc |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 29.30 | 34.03 | 21.26 | 4.73 | 0.182 | 7.80 |
| 10 | 29.00 | 34.03 | 21.35 | 4.73 | 0.140 | 7.91 |
| 20 | 28.87 | 34.04 | 21.40 | 4.71 | 0.126 | 8.15 |
| 30 | 28.00 | 34.07 | 21.71 | 4.73 | 0.152 | 8.21 |
| 50 | 27.03 | 34.20 | 22.13 | 4.63 | 0.168 | 8.40 |
| 75 | 26.82 | 34.33 | 22.32 | 4.61 | 0.088 | 8.18 |
| 100 | 25.25 | 34.68 | 23.05 | 4.43 | 0.091 | 8.02 |
| 125 | 25.37 | 34.79 | 23.12 | 4.26 | 0.131 | 8.01 |
| 150 | 25.33 | 34.87 | 23.18 | 4.13 | 0.100 | 8.00 |
| 200 | 19.21 | 34.85 | 24.86 | 3.93 | 0.263 | 7.94 |
| 250 | 13.71 | 34.86 | 26.18 | 3.30 | 0.301 | 7.91 |
| 300 | 11.19 | 34.88 | 26.67 | 2.48 | 0.299 | 7.87 |
| 400 | 8.81 | 34.50 | 26.80 | 2.41 | 0.453 | 7.73 |
| 483 | 8.16 | 34.54 | 26.92 | 2.34 | 0.574 | 7.59 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 41 | 23 | 2220 | | 2 | 23 | W 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1007.9 | 26.72 | | Cb | 10 | R |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 28.9[illegible] | 33.95 | 21.33 | 4.62 | 0.233 | 7.72 |
| 10 | 28.90 | 33.96 | 21.36 | 4.62 | 0.252 | 7.87 |
| 20 | 28.82 | 33.96 | 21.38 | 5.08 | 0.182 | 8.04 |
| 30 | 28.74 | 34.02 | 21.45 | 5.27 | 0.154 | 8.21 |
| 50 | 27.93 | 34.17 | 21.83 | 4.72 | 0.419 | 8.20 |
| 75 | 27.05 | 34.38 | 22.25 | 4.39 | 0.540 | 8.12 |
| 100 | 24.50 | 34.65 | 23.25 | 4.20 | 0.500 | 8.10 |
| 125 | 21.89 | 34.84 | 24.15 | 4.05 | 0.409 | 8.04 |
| 150 | 20.69 | 34.90 | 24.54 | 3.96 | 0.303 | 7.97 |
| 200 | 19.22 | 34.68 | 25.64 | 3.92 | 0.291 | 7.91 |
| 250 | 15.41 | 34.62 | 25.62 | 3.59 | 0.550 | 7.92 |
| 300 | 11.70 | 34.54 | 26.31 | 3.12 | 0.609 | 7.96 |
| 400 | 9.62 | 34.48 | 26.63 | 2.64 | 0.676 | 8.07 |
| 453 | 9.17 | 34.50 | 26.90 | 2.46 | 0.793 | 8.10 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 42 | 24 | 1012 | | 2 | 25 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1005.6 | 29.11 | | St | 1 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 29.31 | 33.85 | 21.14 | 4.71 | 0.182 | 8.05 |
| 10 | 29.00 | 33.86 | 21.24 | 5.08 | 0.266 | 8.09 |
| 20 | 28.29 | 34.09 | 21.66 | 4.73 | 0.154 | 7.93 |
| 30 | 27.90 | 34.16 | 21.82 | 4.72 | 0.154 | 8.19 |
| 50 | 27.11 | 34.31 | 22.19 | 4.54 | 0.098 | 8.21 |
| 75 | 25.85 | 34.33 | 22.62 | 4.17 | 0.280 | 7.92 |
| 100 | 24.41 | 34.54 | 23.21 | 3.87 | 0.280 | 8.02 |
| 125 | 21.04 | 34.61 | 24.21 | 3.78 | 0.271 | 7.93 |
| 150 | 17.76 | 34.62 | 25.08 | 3.73 | 0.294 | 7.90 |
| 200 | 15.90 | 34.49 | 25.39 | 3.44 | 0.322 | 8.09 |
| 250 | 15.49 | 34.49 | 25.49 | 2.88 | 0.284 | 7.94 |
| 300 | 11.13 | 34.49 | 26.34 | 2.85 | 0.224 | 7.91 |
| 400 | 8.54 | 34.48 | 26.81 | 2.56 | 0.224 | 7.82 |
| 500 | 7.68 | 34.58 | 27.01 | 2.37 | 0.231 | 7.89 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 43 | 24 | 1410 | | | | NE 2 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1008.1 | 27.80 | | St | 1 | B |

| Depth (m) | Temp. ℃ | Sal. ‰ | σt g/L | Oxygen cc/L | $PO_4$-P μg-at/L | pH |
|---|---|---|---|---|---|---|
| 0 | 28.95 | 33.83 | 21.22 | 4.73 | 0.154 | 8.12 |
| 10 | 28.68 | 34.06 | 21.47 | 4.69 | 0.350 | 8.02 |
| 20 | 27.59 | 34.29 | 22.00 | 4.73 | 0.224 | 7.98 |
| 30 | 27.37 | 34.23 | 22.02 | 4.74 | 0.406 | 8.00 |
| 50 | 26.27 | 34.37 | 22.51 | 4.97 | 0.322 | 7.81 |
| 75 | 23.44 | 34.65 | 23.57 | 4.73 | 0.084 | 7.92 |
| 100 | 21.83 | 34.86 | 24.16 | 4.09 | 0.322 | 7.93 |
| 125 | 19.67 | 34.76 | 24.70 | 3.76 | 0.310 | 7.91 |
| 150 | 17.55 | 34.69 | 25.17 | 3.55 | 0.294 | 7.82 |
| 200 | 13.99 | 34.57 | 25.89 | 3.44 | 0.434 | 7.80 |
| 250 | 12.65 | 34.52 | 26.14 | 3.34 | 0.519 | 7.77 |
| 300 | 11.72 | 34.50 | 26.28 | 3.17 | 0.589 | 7.68 |
| 400 | 8.94 | 34.46 | 26.73 | 2.39 | 0.644 | 7.53 |
| 500 | 7.84 | 34.58 | 26.98 | 2.66 | 0.714 | 7.69 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 44 | 24 | 2300 | | 2 | 26 | W 1 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 1 | 1008.0 | 27.85 | | St | 1 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 28.79 | 33.52 | 21.06 | 4.76 | 0.378 | 7.89 |
| 10 | 28.73 | 33.66 | 21.18 | 4.73 | 0.154 | 8.05 |
| 20 | 28.69 | 33.96 | 21.41 | 4.81 | 0.322 | 7.82 |
| 30 | 27.92 | 34.10 | 21.78 | 4.70 | 0.126 | 7.89 |
| 50 | 26.81 | 34.30 | 22.29 | 4.72 | 0.297 | 7.80 |
| 75 | 25.88 | 34.50 | 22.75 | 4.50 | 0.112 | 7.90 |
| 100 | 24.70 | 34.68 | 23.22 | 4.62 | 0.157 | 7.92 |
| 125 | 19.93 | 34.70 | 24.59 | 4.19 | 0.180 | 7.93 |
| 150 | 17.12 | 34.70 | 25.30 | 3.59 | 0.200 | 7.91 |
| 200 | 13.82 | 34.68 | 26.00 | 3.39 | 0.328 | 7.81 |
| 250 | 12.93 | 34.54 | 26.08 | 3.30 | 0.427 | 7.80 |
| 300 | 12.00 | 34.50 | 26.24 | 3.24 | 0.475 | 7.78 |
| 400 | 9.11 | 34.51 | 26.75 | 2.60 | 0.477 | 7.69 |
| 470 | 9.89 | 34.57 | 26.66 | 2.43 | 0.462 | 7.62 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 45 | 25 | 1612 | | | | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1008.5 | 28.04 | | | 0 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 29.11 | 34.09 | 21.37 | 4.73 | 0.084 | 7.81 |
| 10 | 28.69 | 34.19 | 21.57 | 4.76 | 0.042 | 8.09 |
| 20 | 27.71 | 34.26 | 21.95 | 4.69 | 0.062 | 7.94 |
| 30 | 27.66 | 34.27 | 21.98 | 4.73 | 0.163 | 7.82 |
| 50 | 26.69 | 34.37 | 22.36 | 4.64 | 0.068 | 7.89 |
| 75 | 25.70 | 34.58 | 22.83 | 4.63 | 0.156 | 7.99 |
| 100 | 23.20 | 34.85 | 23.78 | 4.30 | 0.130 | 7.64 |
| 125 | 20.49 | 34.88 | 24.57 | 4.30 | 0.228 | 7.69 |
| 150 | 19.01 | 34.84 | 24.92 | 4.07 | 0.236 | 7.63 |
| 200 | 16.26 | 34.72 | 25.50 | 3.43 | 0.270 | 7.53 |
| 250 | 13.66 | 34.60 | 25.98 | 3.04 | 0.464 | 7.61 |
| 300 | 12.29 | 34.52 | 26.18 | 3.00 | 0.604 | 7.60 |
| 400 | 10.11 | 34.48 | 26.47 | 2.77 | 0.757 | 7.59 |
| 437 | 9.21 | 34.53 | 26.74 | 2.58 | 0.770 | 7.62 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 46 | 26 | 0414 | | 2 | 17 | 0 | 0 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | 0 | 1008.0 | 29.93 | | St | 8 | C |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 30.55 | 34.09 | 20.87 | 4.73 | 0.266 | 7.52 |
| 10 | 29.59 | 34.01 | 21.14 | 4.79 | 0.294 | 7.71 |
| 20 | 28.55 | 34.07 | 21.54 | 4.95 | 0.364 | 7.61 |
| 30 | 28.20 | 34.09 | 21.66 | 4.83 | 0.321 | 7.66 |
| 50 | 27.26 | 34.61 | 22.02 | 4.54 | 0.191 | 7.64 |
| 75 | 25.63 | 34.46 | 22.78 | 4.40 | 0.152 | 8.00 |
| 100 | 24.00 | 34.54 | 23.32 | 4.30 | 0.180 | 7.98 |
| 125 | 19.60 | 34.58 | 24.57 | 4.04 | 0.149 | 7.88 |
| 150 | 15.45 | 34.63 | 25.61 | 3.66 | 0.134 | 7.81 |
| 200 | 13.30 | 34.56 | 26.02 | 3.12 | 0.653 | 7.81 |
| 250 | 11.32 | 34.52 | 26.38 | 2.78 | 0.763 | 7.71 |
| 300 | 9.98 | 34.49 | 26.57 | 2.58 | 0.812 | 7.56 |
| 400 | 8.42 | 34.53 | 26.89 | 2.28 | 1.064 | 7.61 |
| 500 | 7.53 | 34.55 | 27.02 | 2.18 | 1.274 | 7.41 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 47 | 2 | 1317 | | | | S 3 | S 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 5 | 1008.4 | 26.97 | | | | |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.96 | 34.32 | 22.08 | 4.84 | 0.154 | 7.57 |
| 10 | 26.31 | 34.36 | 22.46 | 4.81 | 0.322 | 7.80 |
| 20 | 25.52 | 34.44 | 22.78 | 4.76 | 0.069 | 8.12 |
| 30 | 25.25 | 34.50 | 22.93 | 4.79 | 0.332 | 7.95 |
| 50 | 24.59 | 34.54 | 23.15 | 4.63 | 0.296 | 7.93 |
| 75 | 23.59 | 34.60 | 23.42 | 4.62 | 0.225 | 7.94 |
| 100 | 23.41 | 34.70 | 23.61 | 4.40 | 0.342 | 8.32 |
| 125 | 21.12 | 34.60 | 24.17 | 3.94 | 0.394 | 7.72 |
| 150 | 19.13 | 34.56 | 24.68 | 3.44 | 0.413 | 7.63 |
| 200 | 16.23 | 34.74 | 25.50 | 2.98 | 0.525 | 7.77 |
| 250 | 13.31 | 34.58 | 26.04 | 2.95 | 0.619 | 7.58 |
| 300 | 11.03 | 34.48 | 26.39 | 2.86 | 0.700 | 7.52 |
| 400 | 8.19 | 34.43 | 26.81 | 2.40 | 0.792 | 7.59 |
| 467 | 7.47 | 34.41 | 26.92 | 2.30 | 1.190 | 7.51 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 48 | 2 | 2016 | | | | W 3 | W 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 4 | 1008.0 | 26.90 | | | | |

| Depht | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 28.11 | 33.76 | 21.46 | 4.98 | 0.138 | 8.07 |
| 10 | 27.69 | 33.84 | 21.65 | 4.62 | 0.154 | 8.12 |
| 20 | 26.14 | 34.03 | 22.27 | 4.84 | 0.210 | 8.28 |
| 30 | 25.58 | 34.03 | 22.46 | 4.95 | 0.238 | 8.09 |
| 50 | 23.56 | 34.40 | 23.35 | 4.56 | 0.222 | 8.11 |
| 75 | 22.09 | 34.50 | 23.85 | 4.09 | 0.028 | 7.98 |
| 100 | 21.32 | 34.53 | 24.06 | 3.93 | 0.034 | 7.99 |
| 125 | 20.39 | 34.57 | 24.35 | 4.00 | 0.146 | 7.93 |
| 150 | 19.11 | 34.59 | 24.68 | 3.94 | 0.189 | 7.97 |
| 200 | 17.31 | 34.62 | 25.17 | 3.60 | 0.194 | 8.06 |
| 250 | 15.16 | 34.60 | 25.65 | 3.14 | 0.155 | 7.98 |
| 300 | 12.96 | 34.54 | 26.08 | 2.84 | 0.274 | 7.92 |
| 400 | 9.93 | 34.48 | 26.56 | 2.66 | 0.715 | 7.87 |
| 446 | 9.27 | 34.55 | 26.74 | 2.69 | 0.714 | 7.69 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 49 | 3 | 0155 | | 2 | 37 | N 3 | N 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| S | 4 | 1009.6 | 28.96 | | Cu | 2 | B |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 27.28 | 34.40 | 22.19 | 4.84 | 0.196 | 7.82 |
| 10 | 26.80 | 34.68 | 22.56 | 4.95 | 0.238 | 8.05 |
| 20 | 26.42 | 34.73 | 22.72 | 4.91 | 0.141 | 8.21 |
| 30 | 25.86 | 34.74 | 22.92 | 5.02 | 0.156 | 8.29 |
| 50 | 24.65 | 34.67 | 23.22 | 4.84 | 0.125 | 8.19 |
| 75 | 23.92 | 34.88 | 23.59 | 4.84 | 0.194 | 8.23 |
| 100 | 22.62 | 34.92 | 24.01 | 4.79 | 0.210 | 8.20 |
| 125 | 21.79 | 34.92 | 24.25 | 4.76 | 0.149 | 8.07 |
| 150 | 21.00 | 34.92 | 24.45 | 4.72 | 0.170 | 7.95 |
| 200 | 18.86 | 34.86 | 24.98 | 4.67 | 0.267 | 7.84 |
| 250 | 16.85 | 34.76 | 25.40 | 4.54 | 0.153 | 7.86 |
| 300 | 15.56 | 34.70 | 25.66 | 4.62 | 0.208 | 7.87 |
| 400 | 13.13 | 34.54 | 26.04 | 4.24 | 0.551 | 7.89 |
| 446 | 11.38 | 34.44 | 26.29 | 3.66 | 0.686 | 7.91 |

5월(May)　　조사선(Baek Du San)　(Remark : The Time is G. M. T)

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 50 | 3 | 0835 | | 3 | 16 | NE 5 | NW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| SW | 6 | 1006.0 | 28.66 | | Ci | 7 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 26.83 | 34.55 | 22.46 | 4.95 | 0.238 | 7.92 |
| 10 | 26.69 | 34.56 | 22.52 | 4.81 | 0.188 | 8.05 |
| 20 | 25.67 | 34.66 | 22.91 | 5.02 | 0.144 | 8.00 |
| 30 | 25.21 | 34.81 | 23.16 | 5.14 | 0.250 | 8.16 |
| 50 | 23.94 | 34.96 | 23.65 | 4.81 | 0.273 | 8.19 |
| 75 | 22.91 | 34.76 | 23.82 | 4.73 | 0.308 | 7.82 |
| 100 | 21.55 | 34.78 | 24.19 | 4.84 | 0.224 | 7.97 |
| 125 | 20.23 | 34.84 | 24.58 | 4.68 | 0.203 | 7.99 |
| 150 | 19.07 | 34.87 | 24.92 | 4.52 | 0.210 | 7.97 |
| 200 | 17.97 | 34.84 | 25.19 | 4.52 | 0.182 | 7.90 |
| 250 | 16.78 | 34.78 | 25.44 | 4.14 | 0.238 | 8.12 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 51 | 3 | 1418 | | | | W 2 | W 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 3 | 1009.6 | 25.40 | | | | |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 25.71 | 34.37 | 22.68 | 5.11 | 0.126 | 8.31 |
| 10 | 25.25 | 34.40 | 22.85 | 5.25 | 0.266 | 8.39 |
| 20 | 24.53 | 34.42 | 23.08 | 4.95 | 0.227 | 8.28 |
| 30 | 24.09 | 34.44 | 23.20 | 5.04 | 0.200 | 8.28 |
| 50 | 22.42 | 34.50 | 23.75 | 4.78 | 0.168 | 8.00 |
| 75 | 20.49 | 34.59 | 24.34 | 4.41 | 0.174 | 7.98 |
| 100 | 18.32 | 34.64 | 24.94 | 4.17 | 0.215 | 7.90 |
| 125 | 17.01 | 34.66 | 25.27 | 3.90 | 0.168 | 7.89 |
| 150 | 16.07 | 34.66 | 25.49 | 3.70 | 0.222 | 7.90 |
| 200 | 14.62 | 34.62 | 25.79 | 3.66 | 0.186 | 7.82 |
| 250 | 13.60 | 34.58 | 25.96 | 3.64 | 0.178 | 7.71 |
| 300 | 12.55 | 34.50 | 26.11 | 3.50 | 0.248 | 7.71 |
| 339 | 11.02 | 34.51 | 26.41 | 3.23 | 0.770 | 7.71 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 52 | 10 | 0539 | 92 | 3 | 15 | SW 4 | SW 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| | | 1015.0 | 21.32 | | St | 8 | C |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 21.51 | 34.32 | 23.93 | 5.48 | 0.154 | 7.90 |
| 10 | 21.53 | 34.35 | 23.85 | 5.48 | 0.266 | 8.21 |
| 20 | 21.51 | 34.39 | 23.90 | 5.36 | 0.378 | 8.11 |
| 30 | 20.69 | 34.44 | 24.19 | 5.27 | 0.196 | 8.19 |
| 50 | 19.45 | 34.58 | 24.61 | 4.95 | 0.238 | 8.09 |
| 75 | 18.26 | 34.63 | 24.96 | 4.26 | 0.210 | 8.01 |
| Botm. | 17.38 | 34.65 | 25.18 | 3.96 | 0.714 | 7.85 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 53 | 11 | 0220 | 82 | 3 | 13 | W 3 | W 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| E | 2 | 1016.0 | 16.62 | | Cu | 7 | Bc |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 17.68 | 33.27 | 24.02 | 6.28 | 0.112 | 8.21 |
| 10 | 17.55 | 33.24 | 24.10 | 5.91 | 0.070 | 8.12 |
| 20 | 16.07 | 33.54 | 24.61 | 5.81 | 0.112 | 8.15 |
| 30 | 14.39 | 34.20 | 25.51 | 5.81 | 0.126 | 7.91 |
| 50 | 14.36 | 34.24 | 25.53 | 5.44 | 0.140 | 7.92 |
| 75 | 14.36 | 34.24 | 25.55 | 5.29 | 0.530 | 7.89 |
| Botm. | 14.36 | 34.25 | 25.55 | 5.27 | 0.658 | 7.89 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 54 | 11 | 1505 | 65 | | | SSW 2 | SW 2 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NNE | 3 | 1014.9 | 16.70 | | | | |

| Depth | Temp. | Sal. | σt | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | μg-at/L | |
| 0 | 17.08 | 33.32 | 24.17 | 5.97 | 0.266 | 7.91 |
| 10 | 16.72 | 33.18 | 24.19 | 6.02 | 0.266 | 7.82 |
| 20 | 12.32 | 33.55 | 25.40 | 6.45 | 0.140 | 8.21 |
| 30 | 12.06 | 33.66 | 25.54 | 6.27 | 0.168 | 8.12 |
| 50 | 12.05 | 33.66 | 25.54 | 6.11 | 0.154 | 8.05 |
| Botm. | 12.04 | 33.66 | 25.54 | 6.75 | 0.168 | 7.59 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 55 | 12 | 0000 | 90 | 3 | 13 | S 3 | S 3 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| N | 4 | 1017.0 | 16.28 | | Cb | 10 | R |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 16.16 | 33.58 | 24.63 | 5.74 | 0.182 | 7.68 |
| 10 | 16.23 | 33.80 | 24.80 | 5.94 | 0.196 | 7.60 |
| 20 | 15.08 | 34.02 | 25.20 | 6.58 | 0.406 | 7.71 |
| 30 | 11.21 | 33.54 | 25.65 | 6.02 | 0.196 | 7.50 |
| 50 | 11.26 | 33.58 | 25.68 | 6.37 | 0.210 | 7.61 |
| 75 | 11.27 | 33.59 | 25.68 | 6.02 | 0.250 | 7.79 |
| Botm. | 11.25 | 33.58 | 25.68 | 5.81 | 0.274 | 8.12 |

| St No. | Date | Time | Depth | Water Color | Water Trans. | Wave | Swell |
|---|---|---|---|---|---|---|---|
| 56 | 12 | 0725 | 102 | 3 | 16 | SW 1 | SW 1 |

| Wind | | Baro. | Air Temp. | | Cloud | | Weather |
|---|---|---|---|---|---|---|---|
| Direction | Force | | Dry | Wet | Type | Amount | |
| NE | 2 | 1015.0 | 19.47 | | Cb | 10 | R |

| Depth | Temp. | Sal. | $\sigma t$ | Oxygen | $PO_4$-P | pH |
|---|---|---|---|---|---|---|
| (m) | ℃ | ‰ | g/L | cc/L | $\mu$g-at/L | |
| 0 | 18.84 | 34.61 | 24.78 | 5.40 | 0.378 | 8.20 |
| 10 | 18.85 | 34.63 | 24.79 | 5.57 | 0.238 | 8.17 |
| 20 | 18.53 | 34.64 | 24.88 | 5.51 | 0.126 | 7.95 |
| 30 | 17.78 | 34.67 | 25.10 | 5.85 | 0.168 | 8.21 |
| 50 | 16.27 | 34.71 | 25.47 | 5.15 | 0.336 | 8.20 |
| 75 | 14.84 | 34.67 | 25.78 | 4.73 | 0.196 | 8.25 |
| Botm. | 14.38 | 34.65 | 25.83 | 4.73 | 0.280 | 8.09 |

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